

The X
female
doge.
Lord
Soulas, on in
ants & Bills, the
one Harry Hill, and the
on Wagons, Carts, &c.
to take observations upon the conduct of
vaging forces in the Greens, and other hills for
His Lordship entered into a detail of the
measures which he contended, were got in state sufficient to warrant
the publick orders. His Lordship also entered
into a number of the exports and imports of the country,
for the purpose of showing, that upon the whole
of the charge of trace had been against us. He reprehended the pro-
tection of Administration as, contrary to, their former avowed
principle to reduce the national debts, and as calculated
unpopuln. of the preparations for war
Set off a great number of his subjects, who should have no motion, but
equally Ruffians. His Lordship, upon his observation, found

The Nob. & C^o of Haynes offered a motion
that the remonstrance for him to make a particular
Lord's Observations: to the Migration, however, of
& his Unbiased Administration to propose which
said he was little afraid of the judgement the public
would give of it. His Lordship denied the motion
as a vote of censure. His Lordship denied the motion
as a vote of censure. His Lordship denied the motion
as a vote of censure. His Lordship denied the motion
as a vote of censure.

have great weight with the House; but he did think their opinions necessary on the present occasion. He stated, that there were two in the bill, the judges on the one hand, and juries on the other, that it was right for the latter to appeal to the House, of course, of which juries were made, to declare their right to the main point of the constitution, the liberty of the priests & judges themselves, given by the legislature of the state, provided by limiting the functions of juries, they endeavoured to limit improperly, restrain the liberty of the priests that might be usefully employed in discussing the conduct of the judges, and making them regardless of their duty.

Mr. Groverille declared, he had been called upon what had fallen in the noble Lord's speech relative to the two juries to this point, viz. the judges, the one half, and the other. He said, his old master, his Edinburgh friend, in his speech, received that notion from the Committee in Edinburgh,

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101

M E D I C A L B O T A N Y,

C O N T A I N I N G

S Y S T E M A T I C A N D G E N E R A L D E S C R I P T I O N S,

W I T H

P L A T E S, O F A L L T H E M E D I C I N A L P L A N T S,

I N D I G E N O U S A N D E X O T I C,

C O M P R E H E N D E D I N T H E

C A T A L O G U E S O F T H E M A T E R I A M E D I C A,

A S P U B L I S H E D B Y T H E

R O Y A L C O L L E G E S O F P H Y S I C I A N S O F L O N D O N A N D E D I N B U R G H :

A C C O M P A N I E D W I T H A

C I R C U M S T A N T I A L D E T A I L O F T H E I R M E D I C I N A L E F F E C T S,

A N D O F T H E

D I S E A S E S I N W H I C H T H E Y H A V E B E E N M O S T S U C C E S S F U L L Y E M P L O Y E D.

By W I L L I A M W O O D V I L L E, M. D.

O F T H E R O Y A L C O L L E G E O F P H Y S I C I A N S, L O N D O N.

I N T H R E E V O L U M E S.

V O L. I.

*Medicus omnium Stirpium (si fieri potest) peritiam habeat; si minus plurimum saltem quibus
frequentius utimur.*

G A L E N, *Lib. De Antidot.*

L O N D O N:

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M. DCC. XC.



T O

SIR GEORGE BAKER, Bart.

P R E S I D E N T,

T H E

F E L L O W S,

A N D T H E

L I C E N T I A T E S,

O F T H E

ROYAL COLLEGE OF PHYSICIANS,

L O N D O N:

THIS FIRST VOLUME OF MEDICAL BOTANY,

WITH THEIR PERMISSION,

IS MOST RESPECTFULLY INSCRIBED,

B Y

T H E A U T H O R.

P R E F A C E.

IN the catalogues of the *Materia Medica*, the productions of the animal and mineral kingdoms bear a small proportion to those of the vegetable. Though it must be acknowledged that for some time past the medicinal uses of vegetable simples have been less regarded by physicians than they were formerly, which probably may be ascribed to the successive discoveries and improvements in chemistry; it would however be difficult to shew that this preference is supported by any conclusive reasoning drawn from a comparative superiority of Chemicals over Galenicals, or that the more general use of the former has actually led to a more successful practice.

Although what may be called the herbaceous part of the *Materia Medica*, as now received in the British pharmacopœias, comprises but a very inconsiderable portion of the vegetable world; yet limited as it now is, few medicinal practitioners have a distinct botanical knowledge of the individual plants of which it is composed, though generally well acquainted with their effects and pharmaceutical uses. But the practitioner, who is unable to distinguish those plants which he prescribes, is not only subjected to the impositions of the ignorant and fraudulent, but must feel a dissatisfaction which the inquisitive and philosophic mind will be anxious to remove, and to such it is presumed MEDICAL BOTANY, by collecting and supplying the information necessary on this subject, will be found an acceptable and useful work; the professed design of which is not only to enable

the reader to distinguish with precision all those plants which are directed for medicinal use by the Colleges of London and Edinburgh, but to furnish him at the same time with a circumstantial detail of their respective virtues, and of the diseases in which they have been most successfully employed by different writers.

A distinctive and characteristic knowledge of natural objects should certainly precede the consideration of their different properties and qualities; and with respect to plants, this knowledge is seldom to be adequately attained by a mere verbal description: accurate delineations therefore become necessary, and this department is committed to Mr. Sowerby, an artist of established reputation, whose talents are not less conspicuous in the correctness than in the beauty of his designs.

It is justly a matter of surprise, that notwithstanding the universal adoption of the Linnæan system of Botany, and the great advances made in natural science, the works of Blackwell and Sheldrake should still be the only books in this country in which copper-plate figures of the medicinal plants are professedly given; while splendid foreign publications of them, by Regnault, Zorn, and Plenk, have appeared in the space of a very few years. These works however are far from superceding that now offered to the public; for without resorting to the invidious task of pointing out their errors and imperfections, the author has the satisfaction of having exhibited Icons of several rare and valuable plants, which have never been completely figured in any preceding work whatever: and by subjoining some account of the botanical and medical history of each species, curiosity is more fully gratified, and a double interest is excited in the mind of the student.

Duplex est dos libelli.

Respecting

Respecting the uses of Simples, the opinion of Oribasius will not be disputed, viz. “*Simplicium medicamentorum, & facultatum quæ in eis insunt, cognitio ita necessaria est, ut sine ea nemo rite medicari queat:*” and it is a lamentable truth, that our experimental knowledge of many of the herbaceous simples is extremely defective ; for as writers on the Materia Medica have usually done little more than copy the accounts given by their predecessors, the virtues now ascribed to several plants are wholly referrible to the authority of Dioscorides. It is however hoped that the medical reader will find what relates to this part of the work as complete as the slow progressive state of experience in physic will admit : with this intention, facts and opinions have been industriously collected from various authorities ; and those adduced by Professor Murray, and the works of the late Dr. Cullen, have furnished the largest contribution.

The publication of this work in monthly numbers has afforded the author an opportunity of knowing already the sentiments entertained of it, by several Gentlemen of great medical and botanical authority ; from whose unsolicited communications he has derived considerable assistance, and for whose friendly suggestions he desires to make his most grateful acknowledgments.

A CATALOGUE

CATALOGUE,

In which all the PLANTS composing the MATERIA MEDICA,
as referred to by the COLLEGES of LONDON and EDINBURGH,
are arranged according to the System of LINNÆUS, and distinguished
respectively by the letters L E.

CLASS I. MONANDRIA.

ORD. MONOGYNIA.

Amomum <i>Zingiber</i>	L	E
<i>Cardamomum</i>	L	E
Kämpferia <i>rotunda</i>	L	E
Curcuma <i>longa</i>	L	E

II. DIANDRIA.

MONOGYNIA.

Olea <i>europaea</i>	L	E
Veronica <i>Beccabunga</i>	L	—
Gratiola <i>officinalis</i>	L	E
Rosmarinus <i>officinalis</i>	L	E
Salvia <i>officinalis</i>	L	E

TRIGYNIA.

Piper <i>nigrum</i>	L	E
<i>longum</i>	L	E
<i>Cubeba</i>	L	E

III. TRIANDRIA.

MONOGYNIA.

Valeriana <i>officinalis</i>	L	E
Tamarindus <i>indica</i>	L	E
Crocus <i>sativus</i>	L	E
Iris <i>florentina</i>	L	E
<i>Pseudo Acorus</i>	—	E

DIGYNIA.

Saccharum <i>officinarum</i>	L	E
Hordium <i>distichon</i>	L	—
Triticum <i>hybernnum</i>	L	—
Avena <i>sativa</i>	L	—

IV. TETRANDRIA.

MONOGYNIA.

Rubia <i>tinctorum</i>	L	E
Plantago <i>major</i>	—	E
Dorstenia <i>Contrajervia</i>	L	E
Santalum <i>album</i>	—	E

V. PENTANDRIA.

MONOGYNIA.

Anchusa <i>tinctoria</i>	—	E
Menyanthes <i>trifoliata</i>	L	E
Spigelia <i>marilandica</i>	L	E
Convolvulus <i>Scammonia</i>	L	E
<i>Jalapa</i>	L	E
Cinchona <i>officinalis</i>	L	E
Verbascum <i>Thapsus</i>	—	E
Datura <i>Stramonium</i>	—	E
Hyoscyamus <i>niger</i>	—	E
Nicotiana <i>Tabacum</i>	L	—
Atropa <i>Belladonna</i>	—	E
Solanum <i>Dulcamara</i>	—	E
Psychotria <i>emetica</i>	L	E
Capsicum <i>annuum</i>	L	E
Chironia <i>Centaurium</i>	L	E

CATALOGUE.

<i>Rhamnus catharticus</i>	L	E	<i>Scilla maritima</i>	L	E
<i>Ribes rubrum</i>	L	—	<i>Convallaria Polygonatum</i>	—	E
<i>nigrum</i>	L	—	<i>Aloë perfoliata, &c.</i>	L	E
<i>Vitis vinifera</i>	L	—	<i>Acorus Calamus</i>	L	E

DIGYNIA.

<i>Chenopodium Vulvaria</i>	—	E	<i>TRIGYNIA.</i>		
<i>Ulmus campestris</i>	L	E	<i>Rumex aquaticus</i>	—	E
<i>Gentiana lutea</i>	L	E	<i>Acetosa</i>	L	E
<i>purpurea</i>	—	E	<i>Colchicum autumnale</i>	L	E
<i>Salsola Kali, &c.</i>	L	E			

UMBELLATÆ.

<i>Eryngium maritimum</i>	L	—	<i>VII. HEPTANDRIA.</i>		
<i>Daucus Carota</i>	L	E	<i>MONOGYNIA.</i>		
<i>Conium maculatum</i>	L	E	<i>Æsculus Hippo-castanum</i>	—	E
<i>Ferula Assa-fætida</i>	L	E			
<i>Angelica Archangelica</i>	L	E	<i>VIII. OCTANDRIA.</i>		
<i>Bubon Galbanum</i>	L	E	<i>MONOGYNIA.</i>		
<i>Cuminum Cymnum</i>	L	E	<i>Amyris Elemifera</i>	L	—
<i>Coriandrum sativum</i>	L	E	<i>gileadensis</i>	—	E
<i>Sium nodiflorum</i>	L	—	<i>Daphne Mezereum</i>	L	E
<i>Imperatoria Ostruthium</i>	—	E			
<i>Pastinaca Opopanax</i>	L	—	<i>TRIGYNIA.</i>		
<i>Anethum graveolens</i>	L	E	<i>Polygonum Bistorta</i>	L	E
<i>Fæniculum</i>	L	E			
<i>Carum Carui</i>	L	E	<i>IX. ENNEANDRIA.</i>		
<i>Pimpinella Saxifraga</i>	—	E	<i>MONOGYNIA.</i>		
<i>Anisum</i>	L	E	<i>Laurus Cinnamomum</i>	L	E
<i>Apium Petroselinum</i>	L	E	<i>Cassia</i>	—	E

TRIGYNIA.

<i>Sambucus nigra</i>	L	E
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PENTAGYNIA.

<i>Linum usitatissimum</i>	L	E
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VI. HEXANDRIA.

MONOGYNIA.

<i>Allium sativum</i>	L	E
<i>Lilium candidum</i>	—	E

<i>Scilla maritima</i>	L	E
<i>Convallaria Polygonatum</i>	—	E
<i>Aloë perfoliata, &c.</i>	L	E
<i>Acorus Calamus</i>	L	E

TRIGYNIA.

<i>Rumex aquaticus</i>	—	E
<i>Acetosa</i>	L	E

<i>Colchicum autumnale</i>	L	E
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VII. HEPTANDRIA.

MONOGYNIA.

<i>Æsculus Hippo-castanum</i>	—	E
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VIII. OCTANDRIA.

MONOGYNIA.

<i>Amyris Elemifera</i>	L	—
<i>gileadensis</i>	—	E

<i>Daphne Mezereum</i>	L	E
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TRIGYNIA.

<i>Polygonum Bistorta</i>	L	E
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IX. ENNEANDRIA.

MONOGYNIA.

<i>Laurus Cinnamomum</i>	L	E
<i>Cassia</i>	—	E
<i>Camphora</i>	L	E
<i>Nobilis</i>	L	E
<i>Sassafrass</i>	L	E

TRIGYNIA.

<i>Rheum palmatum</i>	L	E
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C A T A L O G U E.

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X. DECANDRIA.

MONOGYNIA.

<i>Cassia Senna</i>	L	E
<i>Fistula</i>	L	E
<i>Guaiacum officinale</i>	L	E
<i>Dictamnus albus</i>	L	—
<i>Ruta graveolens</i>	L	E
<i>Toluifera Balsamum</i>	L	E
<i>Myroxylon peruiferum</i>	L	E
<i>Hæmatoxylum Campechianum</i>	L	E
<i>Quassia amara</i>	L	E
<i>Simaruba</i>	L	E
<i>Rhododendron chrysanthum</i>	—	E
<i>Copaifera officinalis</i>	L	E
<i>Arbutus Uva ursi</i>	L	E
<i>Styrax officinale</i>	L	E
<i>Benzoe</i>	L	E

DIGYNIA.

<i>Saxifraga granulata</i>	—	E
<i>Dianthus Caryophyllus</i>	L	E

PENTAGYNIA.

<i>Oxalis Acetosella</i>	L	—
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XI. DODECANDRIA.

MONOGYNIA.

<i>Aesarum europaeum</i>	L	E
<i>Canella alba</i>	L	E

XII. ICOSANDRIA.

MONOGYNIA.

<i>Myrtus Pimenta</i>	L	E
<i>Punica Granatum</i>	L	E

<i>Amygdalus communis</i>	L	E
<i>Prunus spinosa</i>	L	—
<i>domestica</i>	L	—

PENTAGYNIA.

<i>Pyrus Cydonia</i>	L	E
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POLYGYNIA.

<i>Rosa centifolia</i>	L	E
<i>canina</i>	L	—
<i>gallica</i>	L	E
<i>Rubus idæus</i>	L	—
<i>Potentilla reptans</i>	L	—
<i>T tormentilla erecta</i>	L	E

XIII. POLYANDRIA.

MONOGYNIA.

<i>Papaver somniferum</i>	L	E
<i>Rhaes</i>	L	—
<i>Caryophyllus aromaticus</i>	L	E
<i>Cistus creticus</i>	L	—

TRIGYNIA.

<i>Delphinium Staphisagria</i>	L	—
<i>Aconitum Napellus</i>	L	E

POLYGYNIA.

<i>Helleborus niger</i>	L	E
<i>fætidus</i>	L	—
<i>Clematis recta</i>	—	E
<i>Anemone pratensis</i>	—	E

XIV. DIDYNAMIA.

GYMNOSPERMIA.

<i>Teucrium Marum</i>	L	—
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<i>Teucrium Scordium</i>	L	E	<i>OCTANDRIA.</i>	
<i>Hyssopus officinalis</i>	—	E		
<i>Lavandula Spica</i>	L	E	<i>Polygala Senega</i> L E	
<i>Mentha piperita</i>	L	E		
<i>spicata, Hud.</i>	L	E	<i>DECANDRIA.</i>	
<i>Pulegium</i>	L	E		
<i>Glecoma hederacea</i>	E	—	<i>Pterocarpus santalinus</i> L E	
<i>Marrubium vulgare</i>	L	E	<i>Dolichos pruriens</i> — E	
<i>Origanum vulgare</i>	L	—	<i>Spartium scoparium</i> L E	
<i>Majorana</i>	L	E	<i>Geoffroya inermis Wrig.</i> — E	
<i>Thymus Serpyllum</i>	—	E	<i>Glycyrrhiza glabra</i> L E	
<i>vulgaris</i>	—	E	<i>Trigonella Fænum græcum</i> L E	
<i>Melissa officinalis</i>	L	E	<i>Astragalus Tragacantha</i> L E	
<i>ANGIOSPERMIA.</i>				
<i>Digitalis purpurea</i>	L	E	<i>XVIII. POLYADELPHIA.</i>	
<i>XV. TETRADYNAMIA.</i>				
<i>SILICULOSA.</i>				
<i>Cochlearia officinalis</i>	L	E	<i>ICOSANDRIA.</i>	
<i>Armoracia</i>	L	E	<i>Citrus Medica</i> L E	
<i>SILIQUOSA.</i>				
<i>Sisymbrium Nasturtium</i>	L	E	<i>Aurantium</i> L E	
<i>Sinapis nigra</i>	L	E	<i>POLYANDRIA.</i>	
<i>Cardamine pratensis</i>	L	E	<i>Hypericum perforatum</i> L —	
<i>XVI. MONADELPHIA.</i>				
<i>POLYANDRIA.</i>				
<i>Althaea officinalis</i>	L	E	<i>XIX. SYNGENESIA.</i>	
<i>Malva sylvestris</i>	L	E	<i>POLYGAMIA AEQUALIS.</i>	
<i>XVII. DIADELPHIA.</i>				
<i>HEXANDRIA.</i>				
<i>Fumaria officinalis</i>	—	E	<i>Cynara Scolymus</i> L E	
			<i>Leontodon Taraxacum</i> L E	
			<i>Arctium Lappa</i> L E	
<i>POLYGAMIA SUPERFLUA.</i>				
<i>Tancetum vulgare</i>	L	E		
<i>Artemisia Abrotanum</i>	L	E		
<i>Absinthium</i>	L	E		
<i>vulgaris</i>	—	E		
<i>maritima</i>	L	—		
<i>Santonicum</i>	L	E		

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<i>Tussilago Farfara</i>	L	E
<i>Inula Helenium</i>	L	E
<i>Arnica montana</i>	L	E
<i>Anthemis nobilis</i>	L	E
<i>pyrethrum</i>	L	E
<i>Achillea Millefolium</i>	—	E

POLYANDRIA.

<i>Quercus Robur</i>	L	E
<i>Juglans regia</i>	L	—

MONADELPHIA.

<i>Pinus species variae</i>	L	E
<i>Croton Cascarilla</i>	L	E
<i>Ricinus communis</i>	L	E

MONOGAMIA.

<i>Lobelia siphilitica</i>	—	E
<i>Viola odorata</i>	L	E

SYNGENESIA.

<i>Momordica Elaterium</i>	L	—
<i>Cucumis Colocynthis</i>	L	E
<i>Bryonia alba</i>	—	E

XX. GYNANDRIA.

DIANDRIA.

<i>Orchis mascula</i>	—	E
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HEXANDRIA.

<i>Aristolochia Serpentaria</i>	L	E
<i>rotunda, &c.</i>	—	E

POLYANDRIA.

<i>Arum maculatum</i>	L	E
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XXI. MONOECIA.

MONANDRIA.

<i>Myristica moschata</i> Thunb.	L	E
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TETRANDRIA.

<i>Urtica dioica</i>	L	E
<i>Morus nigra</i>	—	E

HEXANDRIA.

<i>Similax Sarsaparilla</i>	L	E
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MONADELPHIA.

<i>Juniperus communis</i>	L	E
<i>Lycia</i>	L	E
<i>Sabina</i>	L	E
<i>Cissampelos Pareira</i>	L	—

XXIII. POLYGAMIA. XXIV. CRYPTOGAMIA.

MONOECIA.

Veratrum <i>album</i>	L	E
Parietaria <i>officinalis</i>	L	E
Stalagmitis <i>Cambogioides</i> , Mur.	L	E
Mimosa <i>nilotica</i>	L	E
Catechu	L	E

DIOECIA.

Fraxinus <i>Ornus</i> , &c.	L	E
Panax <i>quinquefolium</i>	L	E

TRIOECIA.

Ficus <i>Carica</i>	L	E
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FILICES.

Asplenium <i>Trichomanoides</i>	—	E
Polypodium <i>Filix mas</i>	L	E
	A L G A E.	
Lichen <i>islandicus</i>	—	E

FUNG I.

Boletus <i>igniarius</i>	—	E
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APPENDIX, Palmæ.

Cocos <i>butyracea</i>	—	E
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For an Arrangement of the above, according to their Medicinal

Effects, see the last Volume.

ATROPA BELLADONNA.



Atropa Belladonna.

Published as the Act directs by D. Woodville Jan 7th 1790.

ATROPA BELLADONNA. DEADLY NIGHTSHADE.

SYNONYMA. BELLADONNA, *Pharm. Edin.* BELLADONNA TRICHOTOMA, *Socop. Carn.* i. p. 160. BELLADONNA caule herbaceo, brachiato, foliis ovato-lanceolatis, integerrimis. *Hal. Stirp. Helv.* N. 579. SOLANUM LETHALE, *Clus. Hist.* p. 86. *Dod. purg.* p. 360. SOLANUM MELANOCERASUS, *Baub. Pin.* 166. SOLANUM MAJUS, *Cam. epit.* p. 817.

Class Pentandria. *Order* Monogynia. *L. Gen. Plant.* 249.

Eff. Gen. Ch. Cor. campanulata. Stam. distantia. *Bacca*, globosa, 2-locularis.

Spec. Char. Atropa Belladonna, caule herbaceo, fol. ovatis integris.

THE Belladonna has a thick, whitish, root, which is perennial, and sends forth strong, branched, annual, purple-coloured stems, from three to five feet high. The leaves are of unequal size, entire, oval, pointed, and stand in pairs upon short footstalks. The flowers are of a dark or brownish purple colour, large, pendent, bell-shaped, furrowed, and the limb cut into five segments. The whole plant is covered with fine hairs or down : the flowers appear in June or July, but the berries are not ripe till September, when they acquire a shining black colour. It grows in shady and stony waste grounds, but is not very common near London.

Whether this plant is the *Στρυχνός μαύρικός* of Dioscorides or not, botanists have not yet ascertained, but it has certainly been long known as a strong poison of the narcotic kind ; and the berries, though less powerful than the leaves, furnish us with many instances

of their fatal effects, particularly upon children, who are readily tempted to eat this fruit by its alluring appearance and sweet taste. The number of these berries necessary to produce deleterious effects, may probably depend upon the state of maturity in which they are eaten: if not more than three or four be swallowed, according to Haller's account, no bad consequence ensues; “*Baccæ sapore fatuo dulci possunt absque noxa edi* ^b *si numerus tres quatuorve non excesserit: plures etiam a studio medicinæ Colonensi nomine Simonis vidi deglutiri.*” Hal. Stirp. Helv. No. 579.

^a Sennert. lib. vi. par. 7. cap. 9. Lobel Stirpium Adversa. p. 103. Matthiolus Oper. Omn. p. 754. Oetinger de Belladonna. Aug. Vindel. Strychnomania, &c. Bodaeus à Stapel Comment. in Theophrast. 586. Simon Pauli Quad. Botan. p. 488. Gerard's Herbal, 341. Wepfer's Cicut. Aquat. Histor. et Noxæ, p. 228. Boulduc. Histoire de l'Acad. a. 1703. Rossi Plant. Venen. p. 11. Boerhaave's Hist. Plant. Lugd. at. Hort. p. 510. Journ. de Med. ann. 1759. Gent. Magaz. 1747 & 1748. Hill's British Herbal, p. 329. Spielman's Diff. Veget. Venen. p. 16. Mapp. Pl. Alsat. p. 36. Murray's Apparatus Medicam. p. 431. Many other recent facts of the same kind might be adduced from various periodical publications. Ray found by applying the leaves of the Belladonna near the eye, a remarkable relaxation of the uvea was produced. Sauvages (*Nosol.*) supposes that the Belladonna was the plant which produced such strange and dreadful effects upon the Roman soldiers, during their retreat (under the command of Anthony) from the Parthians; they are said to have “suffered great distress for want of provisions, and were urged to eat unknown plants: among others they met with an herb that was mortal; he that had eaten of it, lost his memory and his senses, and employed himself wholly in turning about all the stones he could find, and after vomiting up bile, fell down dead.” Plutarch's Life of Anthony.—The Scotch historian, Buchanan, relates that the Scots mixed a quantity of the juice of the Belladonna (*Solanum Somniferum*) with the bread and drink, which by their truce they were to supply the Danes with, which so intoxicated them, that the Scots killed the greatest part of Sweno's army while asleep. Lib. vii.

Ray relates a curious instance of the effects of this plant in the following words. Hist. Plant. p. 680. Accidit, ni fallor, tempore Pontificis Maximi Urbani ultimi, ut quidam de famulitio Cardinalis magni nominis (ut mihi hic Augustæ retulit ejus hortulanus) infunderet in vino Malvatico herbam illam quam Bellam Donnam vocant, daturam alias per noctem ut ejus herbae effectus discerent; infusum hoc propinarunt cuidam fratri mendicanti ex conventu S. Hieronymi, qui Patavii Fratrum ignorantiae dicitur, à primo breve delirium, cachinni, gesticulationes variæ; dein insania vera, post stupor mentis qualis est ebriorum vigilantium. Cardinalis pro ebrio in carcere includit; deinde à medico qui rem subolfecerat innocens pronuntiatur, qui aceti cyatho propinato, a dementia quam Bella Donna causavit eum liberat. Hachstellerus Decad. 7 Ob.

And Shakespeare in his Macbeth makes Banquo say,

Or have we eaten of the insane root

That takes the reason prisoner.

^b Hort. Florent. p. 62.

But

But when a greater number of the berries are taken into the stomach, scarcely half an hour elapses before violent symptoms supervene; viz. vertigo, delirium, great thirst, painful deglutition, and retching, followed by furor, stridor dentium, and convulsions; the eye-lids are drawn down, the uvea dilated and immovable; the face becomes red and tumid, and spasms affect the mouth and jaw; the general sensibility and irritability of the body suffer such great diminution, that the stomach often bears large and repeated doses of tart. emet. (gr. 14.) without being brought into action; the pulse is small, hard, quick, and subsultus tendinum, risus sardonicus & coma, generally precede death. The body being opened, inflammation has been discovered in the intestines, mesentery, and liver, Comm. Nor. 1743, p. 61. And Boulduc, Hist. de l'Acad. des Sc. de Paris, 1703, p. 56. found the stomach of a child eroded in three places. It may be necessary to remark, that vinegar, liberally drunk, has been found very efficacious in obviating the effects of this poison; evacuations should however be always first promoted.

The leaves of the Belladonna were first used externally to discus scirrhous and cancerous tumours, and also as an application to ill conditioned ulcers: their good effects in this way at length induced physicians to employ them internally for the same disorders, and we have a considerable number of well authenticated facts which prove them a very serviceable and important remedy.^c But it must likewise be confessed, that many cases of this sort have occurred in which the Belladonna has been employed without success:^d this, however, may

^c Junker's Conspect. Ther. Gen. Ed. 1725. p. 491. Journ. de Med. ann. 1766. Timmermann's Progr. Mich. Albertus de Belladonna. Tib. Lamberg, stated in the Phil. Transl. vol. 50, by Mr. Pultney. Comment. de Rebus, tom. 8. p. 654. Durlac Journ. de Med. t. 11. p. 449. Amoureux, l. c. tom. 13. p. 47. Marteau. l. c. tom. 14. p. 11. van den. Block. l. c. tom. 14. p. 108. Ludw. Advers. Pract. vol. 1. P. 4. p. 637. and vol. 2. p. 314. To which we may add the later authorities of Bergius, (Mat. Med. p. 128. vol. 1.) and Murray, App. Med. vol. 1. p. 440. who used them successfully in convulsions and epilepsy. The good effects of the berries may be learned from Gesner, Epist. p. 34. Eph. N. C. ann. 3. Obs. 64. Smetius, lib. 4. p. 238. Mayerne Prax. Med. Syntagm. Alt. p. 136.

^d Heister Chirurgie, p. 328. Van. Der. Harr. over de Knierknoest-en Kanker Gezwollen, p. 85. Van. Doovern. in litt. ad Timmermann Progr. Timmerman junr. ibid. Acrel. Chir. Händelser. p. 40. De Haen Rat. Med. tom 2. p. 45. Schmuckero Chirurg. Wahrnehmungen, tom. 2. p. 150. And some accounts given of this plant by our own countrymen Gataker and Bromfield.

be said of every medicine; and though Dr. Cullen repeatedly experienced its inefficacy, yet the facts he adduces in confirmation of the utility of this plant, are clear and decisive: "I have had a cancer of the lip entirely cured by it; a scirrhosity in a woman's breast, of such a kind as frequently proceeds to cancer, I have found entirely discussed by the use of it; a sore a little below the eye, which had put on a cancerous appearance, was much mended by the internal use of the Belladonna: but the patient having learned somewhat of the poisonous nature of the medicine, refused to continue the use of it, upon which the sore again spread, and was painful; but upon a return to the use of the Belladonna, was again mended to a considerable degree: when the same fears again returning, the use of it was again laid aside, and with the same consequence of the sore becoming worse. Of these alternate states, connected with the alternate use of, and abstinence from, the Belladonna, there were several of these alternations which fell under my own observation."

The sensible effects produced by the leaves of this plant taken in medicinal doses, are usually by the skin, the urinary passages, and sometimes by stool; in larger doses troublesome dryness of the mouth and throat, giddiness, and dimness of sight are experienced.

That the advantages derived from the internal use of Belladonna are only in proportion to the evacuations effected by it, is a conclusion we cannot admit as sufficiently warranted by the facts adduced upon this point.

As this plant is very uncertain in its operation, the proper dose is with difficulty ascertained; the most prudent manner of administering it is by beginning with one grain or less, which may be gradually increased according to its effects. Six grains are considered as a very large dose.—With respect to the berries, so successfully employed as an anodyne, by Gesner and others, in dysenteries, a small spoonful (*coch. parvum*) of a syrup of the juice was the dose given.

The root seems to partake of the same qualities as the leaves, but is less virulent.



Menyanthes trifoliata

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MENYANTHES TRIFOLIATA.

WATER TREFOIL, OR
BUCKBEAN.

SYNONYMA. TRIFOLIUM PALUDOSUM, *Pharm. Lond.* &
Edin. MENYANTHES PALUSTRE TRIPHILLUM, *Tourn. Boerb.*
Ray. TRIFOLIUM FIBRINUM, *Off. Germ.* ACOPA, *Dioscor.*
Hist. Oxon.

Class Pentandria. *Order* Monogynia. *L. Gen. Plant.* 202.

Eff. Gen. Char. *Cor.* hirsuta. *Stigma* 2-fidum. *Caps.* 1-locularis.

Spec. Char. M. fol. ternatis.

THIS plant is common in every part of England; it grows in marshes and ponds, producing its flowers in an open terminal spike about the latter end of June. The scapus, or stalk, rises from six to twelve inches in height. The petals are sometimes entirely white, but more commonly rose-coloured on the outside, and within they are finely fringed, so as to have a hairy or fibrous appearance, hence named Trifolium Fibrinum: the root is perennial, creeping, and jointed, sending forth many long slender filaments. The trifoliata is easily distinguished from the other species of Menyanthes by its ternate leaves, which have been thought to resemble those of the common garden bean, and have given it the English name, Buckbean.

The whole plant is so extremely bitter, that in some countries it is used as a substitute for hops in the preparation of malt liquor^a; yet Linnæus observes, that the poorer people in Lapland make a bread of the powdered roots mixed with meal, but at the same time he acknowledges it is a very unpalatable food^b.

^a *Flor. Lappon.* p. 50.
 No. 1.

^b *Ibid.*

B

fails

The blackness manifested by adding a solution of green vitriol to the juice, or to a strong infusion of the leaves of Buckbean, is a sufficient test of its astringency; while a dram of the powdered leaves seldom fails to open the body, or produce vomiting; so that in common with the tonic properties of a bitter, it seems farther to possess a considerable share of medicinal activity: we can therefore more easily credit the reports of its success in a great number of chronic diseases mentioned by various authors^c, as scurvy, dropsy, jaundice, asthma, periodical headachs, intermittents, hypochondriasis, cachexia, obstr^{ctio} mensium, rheumatism, scrophula, worms, gout. Dr. Boerhaave was relieved in the last mentioned complaint by drinking the juice mixed with whey^d; and Dr. Alston tells us, that "this plant had remarkable effects in the gout, in keeping off "the paroxysms;" but adds, "though not to the patient's advantage^e.

In confirmation of the good effects of Water Trefoil in dropsies, we are told that sheep, when forced to eat it, are ^f cured of the rot; (*oves tabidæ*) yet as we have but few and imperfect proofs of its diuretic powers, this fact will be considered of little weight.

Bergius confines the uses of this plant to scorbutus, leucophlegmatia, arthritis, rheumatismus, cacoethes^g, and this specification is still farther contracted by later writers on the *Materia Medica*. In Lewis's *Mat. Med.* (*by Mr. Aikin*) it is said, that the leaves of buckbean "have of late years come into common use as an alterative and aperient, in impurities of the humours, and some hydropic and rheumatic cases;" and as an active and eccoprotic bitter, we should suppose them not ill adapted to supply the want of bile in the *primæ viæ*, and thus infer their use in protracted

^c Trifolii Fibrini Historia, selectis observationibus et perspicuis exemplis, illustrata a Jo. Franco, anno 1701.

Recte observavit D. Tancredus Robinson herbam hanc Germanis, aliisque gentibus septentrionalibus nunc dierum unicè charam et in magno pretio esse, et assiduo usu frequentari in omnibus fere morbis, ut certissimam panaceam, ad quam etiam in deploratis affectionibus, velut ad sacram anchoram, confugiunt (*Raii Histor. Plant.* p. 1099.) See also Willius Act. Hafn. vol. 3. Sim. Pauli, *Quadrip. Bot.* p. 173. et seq. Tilling Misc. N. curios. Dec. 2. Gulbrand Diff. de Sanguifluxu Uterino. Du Clos Anc. Mem. p. 329. Schulz Mat. Med. p. 445.

^d Eph. Nat. Cur. Dec. I. ann. III. Obs. 123 (this answers Dr. Alston's query, who asks, "Where is this related?" Alston. Mat. Med. vol. 2. p. 240.

^e l. c.

^f Dr. T. Robinson.

^g Mat. Med. vol. I. p. 91.

jaundice,



Sciotodon

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Taraxacum.

by D. Woodville Jan 7. 1790.

jaundice, and other biliary obstructions. Dr. Cullen has "had several instances of their good effects in some cutaneous diseases of the herpetic and seemingly cancerous kind."^b

The leaves may be given in powder from ʒi to ʒij for a dose two or three times a day, but a strong infusion of them is perhaps preferable, and with delicate stomachs it may be necessary to conjoin a grateful aromatick: they impart their properties both to watery and spiritous menstrua, and an extract is ordered to be prepared from them in the Ph. Dan. p. 171. Efficax et frequentis commode usus. Murray.

LEONTODON TARAXACUM. COMMON DANDELION.

SYNONYMA. TARAXACUM, *Pharm. Lond. & Edin.* DENS LEONIS, *Auctorum.*

Class Syngenesia. *Order* Polygamia Æqualis. *L. Gen. Plant.* 912.

* *Semiflosculosi Tourn. corollis ligulatis omnibus.*

Eff. Gen. Char. *Recept.* nudum. *Cal.* imbricatus, squamis laxusculis. *Pappus* plumosus.

Spec. Char. L. T. calyce-squamis inferne reflexis, foliis runcinatis denticulatis lœvibus.

DANDELION is so very common, that a plot of ground can scarcely be seen where it does not present its yellow flowers*. It is easily distinguished from the hawkweeds and other ligulated

^b Mat Med. vol. 2. p. 75.

* It has been observed that these flowers possess a certain degree of sensibility, for when under the powerful influence of the sun in a summer's morning, an evident motion of the flowerets may be discovered. MS Lect. of the late Dr. Hope.

plants,

plants, by the outer calyces being bent downwards, and by the flower stalk, which is simple, coloured, shining, and unifloral : the leaves are all radical and cut in a peculiar way, forming a good example of what botanists call runcinata. The seeds, in approaching to maturity, become crowned with a fine downy feather, disposed in a spherical shape. The root is perennial and spindle-shaped, which with the whole plant abounds with a milky juice.

The young leaves of this plant in a blanched state have the taste of endive, and make an excellent addition to those plants eaten early in the spring as fallads^a. At Gottingen the roots are roasted and substituted for coffee by the poorer inhabitants ; who find that an infusion prepared in this way can hardly be distinguished from that of the coffee ^b berry.

Dandelion is generally considered by medical writers as the most active and efficacious of the lactescent plants ; the expressed juice is bitter and somewhat acrid, the root however is still bitterer ^c, and possesses more medicinal power than any other part of the plant. Taraxacum has been long in repute as a mild detergent and aperient, and its diuretic effects may be inferred from the vulgar name it bears in most of the European languages, *quasi lectimina et urinaria herba dicitur*^d. Murray says, *Viscidos nimirum tenacesque humores stirps solvit, et obstructa vasa referat, eruptionem variam sanat*^e : and Bergius recommends its use in obstructions of the liver, hypochondriasis, and jaundice. Its successful use in the first of these diseases is confirmed by his own experience^f. De Haen also gives us another instance of the same complaint cured by the same means ;

^a Withering's Bot. Arrang. p. 839.

^b Murray's Apparatus. p. 107.

^c Haller's Strip. Hel. n. 58.

^d — plus lotii derivat in vesicam quām pueruli retinendo sunt, præsertim inter dormiendum, eoque tunc imprudentes et inviti stragula permingunt. Ray's Hist. Pl. p. 244.

^e Murray, l. c.

^f In hepatis morbis, præstantissima est radix hæc recens, fero lactis, jusculis et apozeumatibus incocta. Præclara identidem inde vidi, ubi alia fecellerunt. Sæpe mihi successit resolvere duritiem hepatis cum juscule parato e radice rec. Taraxaci et fol. rec. acetosæ, in fero lactis coctis, vel in aqua, addito vitello ovi, quod jusculum quotidie per plures septimanas, immo menses, sumpserunt ægroti, propinato simul cremore tartari. Hoc regimen exoptata præstitit etiam in calculo felleo et in ascitide. Mat. Med. tom. 2. p. 649.

and we have various proofs of the good effects of the Taraxacum related by different authors, in jaundice^g, dropfy^h, pulmonic tuberclesⁱ, and some cutaneous disorders^k.

The leaves, roots, flower stalks, and juice of Dandelion, have all been separately employed for medical purposes, and seem to differ rather in degree of strength than in any essential property: therefore the expressed juice, or a strong decoction of the roots have most commonly been prescribed, from one ounce to four, two or three times a day. The plant should be always used fresh; even extracts prepared from it appear to lose much of their power by keeping^l.

^g Van Swieten's Com. tom. 3. p. 102. and Boerhaave apud Boretium.

^h Bergius loc. cit. Bonafas in Hautesierckü Recueil d'Observ. tom. 2. p. 360. Fränk. Samml. t. 1. p. 226.

ⁱ Zimmerman, vide Murray, l. c. Haller, l. c. Park. 780.

^k Leidenfrost Dissert. de Succis. Herb. rec. p. 27. Frank. Samml. l. c. p. 126. Delius's Diff. de Tarax. aq. teraxaci per fermentationem parata: et in aliis morbis utitur. Febure Chemie. 2. p. 408.

Ingreditur cum radice graminis regiam illam ptisanam, cuius formulam Ludovicus XIV. magno pretio redemit. Haller's Stirp. Hel. No. 56.

^l Lewis's M. M. 273.

ARNICA MONTANA.

MOUNTAIN ARNICA.

SYNONYMA. ARNICA, *Pharm. Lon.* & *Edin.* DORONICUM AUSTRIACUM QUARTUM, *Clus. Pann.* p. 520. Διογεντίνη Reineaulme, p. 118. DORONICUM PLANTAGINIS folio alterum, C. B. 185. *Tourn. Institut.* 487. DORONICUM GERMANICUM Park & Ray. DORONICUM GERMANICUM foliis semper ex adverso nascentibus villosis, *J. B.* III. 19. CALENDULA ALPINA, *Gerard* 740. ARNICA foliis conjugatis, ovatis, integerimis, *Hal. Stirp. Helv.* No. 90.

Class Syngenesia. *Ord.* Polygamia superflua, *L. Gen. Pl.* 958.

Eff. Gen. Char. Recept. nudum. *Pappus simplex.* *Corollulæ* radii filamentis 5 absque antheris.

Sþ. Ch. A. foliis ovatis integris: caulinis geminis oppositis.

THIS plant is very common upon the northern mountains of Germany and Switzerland, and was first cultivated in this country by Mr. P. Miller in 1759. ^a The stalk grows above one foot high, erect, roundish, striated, rough, hairy. The radical leaves are oval, narrow at their bases, and more obtusely lanceolated than the caudine leaves. On the stalk they are sessil, entire, oval, obtusely lance-shaped, and stand in pairs: the flowers are large, yellow, radiated, solitary, terminal, appearing in July: the calyx is imbricated, and consists of a single row of narrow, pointed, rough leaflets: the root is perennial, thick, fleshy, and spreading.

The odour of the fresh plant is rather unpleasant, and the taste acrid, herbaceous, and astringent; a watery infusion of it strikes a

^a *Hortus Kewensis*, vol. 3. p. 226.



Arnica montana

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black colour by the addition of sal martis^b, and the powdered leaves act as a strong sternutatory.

That the Arnica is a medicine of considerable activity there cannot be a doubt; but how far it deserves the extravagant praises it has received at Vienna, is not for us to determine; either the facts stated by Dr. Collin are not admitted by the physicians of this country, or we are disregardful * of a remedy of the first importance in the *Materia Medica*.

But as our business is to adduce whatever is recorded of each plant by authors of respectability, (whether of Arnica or *Hemlock*) still the medical reader must form his own judgment of the evidence.

The virtues of this plant^c, according to Bergius, are emetica, errhina, diuretica, diaphoretica, emmanagoga, and from its supposed power of attenuating the blood, it has been esteemed so peculiarly efficacious in obviating the bad consequences occasioned by falls and bruises, that it obtained the appellation of panacea lapsorum^d; and to this resolvent power its success in sundry diseases has been accounted for, particularly pulmonic complaints, suppressio mensium, and visceral obstructions^e. Of the advantages derived from its use in paralytic and other affections depending upon an interruption or diminution of nervous energy, we have several proofs^f; and it is observed in these cases, that the recovery is generally preceded by great uneasiness, or acute pain in the parts affected. But it is the

^b Bergius, m. m. 683

* The author has not been able to procure this plant from any of the London drug-gists.

^c There is a variety of this species with narrower leaves, which is more powerfully medicinal. Gmelin Flor. Sibir. t. 2. p. 153.

^d Fehrius Eph. N. C. Dec. 1. ann. 9 & 10. Obs. 2. Acta Med. Berolin, Dec. 1. vol. 1. n. 4. vol. 10. p. 80. Dec. 2. vol. 1. p. 66. Buchner, Diss. de genuinis principiis et effectibus Arnicæ. Schulzius, M. M. De La Marche Diss. de Arnicæ veræ usu. Rosenstein. Apot. p. 21. Scopol. Fl. carn. p. 377.

^e Fehr loc. cit. Brückner, in Sel. Med. Francaf. vol. 3. p. 190. Act. Berol. Dec. 1. vol. 9. p. 24. Quarín, Meth. Med. inflam. p. 80. Act. Berol Dec. 1. vol. 10. p. 82. l. c. Dec. 2. vol. 4. p. 92 & 94. Nebel in Act. nat. cur. vol. 8. Obs. 113. Vater, Diss. de Ictero.

^f Bergius m. m. Junker Therap. gen, p. 173. Eschenbach Obs. p. 353. & Dr. Collin, Flor. Arnicæ Vires, mentions 28 cases of paralysis, and 9 of amaurosis. Aaskow Societ. Med. Havan. vol. 2. p. 162.

extraordinary febrifuge and antiseptic virtue of the Arnica, which have been so highly extolled by Dr. Collin ^g.

It had long been a desideratum of his to find an European plant of equal medicinal powers with the Peruvian bark in fevers of the intermitting and putrid kind ; and after several fruitless trials of different simples, at last he had the satisfaction to find them in the Arnica ; for by the flowers of this plant, made into an electuary ^h with honey, he cured more than one thousand patients labouring under the different species of intermitting fevers in the Pazman hospital, from December 1771, to July 1774 ; and during the following winter the Doctor made trial of a watery extract of the flowers, by which he cured thirty quotidian, forty-six tertians, and fifty-eight quartans *.

In putrid fevers the Doctor experienced equal success with the flowers employed in the way of infusion ⁱ, with which many hundreds of patients were snatched from the very jaws of death. However, there are some cases where the Doctor recommends the root ^k in preference to the flowers, believing the former to possess more cordial, tonic, and antiseptic qualities ; and it is accordingly directed in those cases where putridity and debility are more prevalent than fever ; also in a malignant dysentery Dr. Collin could relate many hundred instances of the superior efficacy of Arnica root, and his practice in this disease was imitated and confirmed by Dr. Dietl ^l.

Dr. Collin farther ascertains the medicinal powers which he attributes to this root in thirteen cases of gangrenes, where its anti-

^g Hen. Jof. Collin, physician to the Pazman hospital, *De arnicæ in febribus, & aliis morbis putridis viribus.*

^h R. Pulv. Flor. Arnicæ drach. ix. mellis q. s. bidui spatio absumendum.

* Dr. Collin is, we believe, the only author who has experienced the good effects of Arnica in intermitting fevers, if we except the two cases stated by Aaskow (l. c.) where it acted as a powerful evacuant. Bergius employed it in quartan intermittents, which were aggravated, rather than bettered, by the use of this medicine, m. m.

ⁱ R. Flor. arnicæ unc j. infunde in s. q. aquæ fervidæ per $\frac{1}{2}$ horam, deinde vase clauso per medium $\frac{1}{4}$ horæ ebulliant ; colat. lib. ij. add. syr. capill. vener. q. s. ad gratiam ; et omni bihorio diei sumat unc ij.

^k R. Pulv. Rad. Arnicæ unc. ij. digere in phiala alta balneo arena adaptata, exacte clausa, per 12 horas cum aq. q. s. colatur. unc. xxx. adde syr. aelth. unc. iij. m. sumat æger omni bihorio unc. ij. vel iij. And to make this medicine more palatable to the patient, he occasionally added lemon juice, spt. vitriol, or wine.

^l Physician to the military hospital of invalids, at Vienna.



Convolvulus

Scammonia

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septic effects admitted of more evident proof. As the Arnica, when first administered, often excites vomiting, or uneasiness at the stomach, it will be necessary to begin with small doses; but by repeating the medicine two or three times this uneasiness goes off.

CONVOLVULUS SCAMMONIA. SCAMMONY BIND-WEED.

SYNONYMA. CONVOLVULUS, foliis sagittatis, postice truncatis, pedunculis bifloris. *Roy Lugdb.* 427. CONVOLVULUS SYRIACUS. *Morris Hist.* 2. p. 12. SCAMMONIUM SYRIACUM. *Gerard,* 866. *Lobel Icon,* 620. GUMMI-RESINA. SCAMMONIUM. *Pharm. Lond. & Edin.* Σκαμμωνία *Diosc.* Δακρυδιόν *Trallian et quorund.* *Græcor.*

Class Pentandria. *Ord.* Monogynia. *L. Gen. Plant.* 215.

Eff. Gen. Ch. Cor. Campanulata, plicata. *Stigmata* 2. *Caps.* 2-locularis: loculis dispermis.

Spec. Ch. C. fol. sagittatis postice truncatis, pedunc. teretibus subtrifloris.

THIS plant grows plentifully about Maraash, Antioch, Edlib, and towards Tripoly in Syria: it was first cultivated in England by Mr. Gerard, in 1597. The root is from three to four feet long, and from nine to twelve inches in circumference, covered with bark of a light grey colour, it is perennial, tapering, branched towards the bottom, No. 1.

and contains a milky juice; the stalks are numerous, slender, twining, and spread themselves upon the ground, or neighbouring trees, to the extent of fifteen or twenty feet; the leaves are arrow-shaped, smooth, of a bright green colour, and stand upon long footstalks: the flowers are funnel-shaped, yellowish, plicated, and, according to Dr. Russel, placed in pairs upon the pedicles: the calyx is double, consisting of four emarginated leaflets in each row: the capsule is three and sometimes four locular,* containing seeds of a pyramidal shape. No part of the dried plant possesses any medicinal quality but the root, which Dr. Russel administered in decoction, and found it to be a pleasant and mild cathartic.

It is from the milky juice of the root that we obtain the officinal Scammony, which is procured in the following manner by the peasants, who collect it in the beginning of June: “^a Having cleared away the earth from about the root, they cut off the top, in an oblique direction, about two inches below where the stalks spring from it. Under the most depending part of the slope they fix a shell, or some other convenient receptacle, into which the milky juice gradually flows. It is left there about twelve hours, which time is sufficient for draining off the whole juice: this, however, is in small quantity, each root affording but a very few drams. This juice from the several roots is put together, often into the leg of an old boot, for want of some more proper vessel, where in a little time it grows hard, and is the genuine Scammony.” This concrete is a gummy-resin, generally of a light, shining, grey colour, and friable texture. It is brought from Aleppo and Smyrna; ^b that which comes from the latter place is less valued than the former, and is supposed to be more ponderous and of a deeper colour; but the colour affords no test of the goodness

* The *Caps 2-locularis* of Linnæus, ought to be corrected.

^a Dr. Russel's Description of this plant in the Medical Observations and Inquiries, v. I. p. 18.

^b The Jews make it their business to go to the places where the Scammony is collected, and there buying it while yet soft, have an opportunity of mixing it with such things as best answers their purpose; as wheat-flower, ashes, fine sand, with all of which Dr. Russel found it adulterated. The purest Scammony is therefore the most active and most soluble.

of this drug, which seems to depend entirely upon the purity of the concrete. The smell of Scammony is rather unpleasant, and the taste bitterish and slightly acrid. The different proportions of gum and resin of which it consists, have been variously stated, ^c but as proof spirit is the best menstruum for it, these substances are supposed to be nearly in equal parts.

Scammony appears to have been well known to the Greek and Arabian physicians, ^d and was not only employed internally as a purgative, but also as an external remedy for tumours, scabies, tinea, fixed pains, &c. — Although this drug was seldom given alone, yet we find it was very generally used, ^e and an ingredient in many compounds which were formerly held in very great repute. — Hoffman, however, entertained an opinion, that Scammony was a dangerous medicine; “Ego nunquam in praxi mea in usu habui, “nec in posterum habebo; me semper ab istiusmodi venenis “colliquativis abstiens. *Hoff. in Schrod. p. 543.*” But since Boerhaave’s time it has been considered as a safe though stimulating cathartic, and frequently prescribed uncombined with any other substance, yet neither producing tormina nor hypercatharsis. Like other resinous purgatives it is uncertain in its operation, which may be occasioned by the intestines being more or less defended from the action of these stimulants, by the quantity of natural mucus with which they are covered.

^c Boulduc Mem de l’Ac. de Sc. 1702. Geoffroy Mat. Med.

^d Hippocrates, Dioscorides, Aëtius, Mesue, &c.

^e As Diagrydium. Scam defœcatum per succum citroniorum. Extractum spt vin. Extract. diagridii aromaticum. Extract. scam glycyrrhizatum. Elixir Scammon. Scam. vitriolatum, Scam sulphuratum, Scam. rosatum, Infusum scammonii, Diacydonium lucidum scammoniatum. Gelatina cydoniorum laxativa, &c.

^f Among these were the Pulvis de Tribus, or Pulvis trium Diabolorum, Pulvis Basilicus, Pulvis Comitis de Warwick, which was afterwards called Pulvis Cornachini, because Marcus Cornachini, professor of medicine at Pisa, recommended it as a panacea, in a book, the title of which is, “*Methodus qua omnes humani corporis affectiones ab humoribus copiâ aut qualitate peccantibus genitæ, tuto, cito, et jucunde curantur.*”

The dose of Scammony is generally from three to twelve grains. It is commonly triturated with sugar, almonds, &c. or with a decoction of liquorice, as recommended by the college of Wirtemberg. In the London Pharmacopœia it is ordered in the following compounds: — Pulvis e scammonio compositus. Pulvis e scammonio compositus cum aloë. Pulvis e scammonio cum calomelane. Pulvis e senna compositus. Extractum colocynthidis compositum. And in the Pilulæ ex colocynthide cum aloë of the Edinburgh Pharm.

ACONITUM NAPELLUS.

COMMON WOLF's-BANE, or
MONK's HOOD.

SYNONYMA. ACONITUM, *Pharm. Lond.* & *Edin.* Stoerck tab. 3.

ACONITUM cæruleum seu Napellus, *Baub. pin.* 183. ACONITUM caule simplici, spica densa, petiolis unifloris, casside breviter mucronata, *Hal. Stirp. Helv.* No. 1197, vires autem, No. 1198. ACONITUM verus cæruleus, *Gerard.* ACONITUM, *Spec. i, Raii.* NAPELLUS, *Matth. Camerar. Dodon.* &c.

Class Polyandria. Order Trigynia. L. Gen. Plant. 682.

Eff. Gen. Char Cal. o. Petala 5: supremo fornicato. Nectaria 2, pedunculata, recurva. Siliquæ, 3 f. 5.

Sp. Ch. A. foliorum laciniis linearibus superne latioribus linea exaratis.

THE root is perennial, turnip-shaped, or more commonly fusiform; the stalk is simple, erect, strong, beset with many leaves, and grows from two to five feet high: the leaves are lobed, deeply laciniated,



Aconitum Napellus

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laciniated, and stand alternately upon long footstalks, but the upper leaves are almost sessile, and the laciniae much broader than those towards the bottom of the stem; the superior pagina of the leaf is of a dark green colour, but the under pagina is whitish; the peduncles are generally unifloral, erect, and villous; the flowers terminate the stalk, are without calyces, and grow in a long racemus or spike; each flower consists of five petals, which include two nectaries, the uppermost petal is arched over the lateral ones, so as to appear helmet-shaped, or hooded; they are all of a purplish or deep violet colour: the pistilla, (according to Jacquin) are three, four, and sometimes five. The Aconitum is a native of the mountainous and woody parts of Germany, France, and Switzerland; but since the time of Gerard, it has been cultivated for ornament in most of the flower-gardens in this country.

The figure of this plant given by Stoerck, is supposed, by Haller and Bergius to be the Aconitum Cammarum of Linnæus: Murray, however, is of a different opinion; and upon comparing Stoerck's Aconitum with the Cammarum and Napellus, as delineated by Jacquin, (Flor. Aust.) we have no hesitation in referring it to the latter.*

Every part of the fresh plant is strongly poisonous, but the root is unquestionably the most powerful, and when first chewed imparts a slight sense of acrimony, but afterwards, an insensibility, or stupor at the apex of the tongue, and a pungent heat of the lips, gums, palate, and fauces, are perceived, followed with a general tremor and sensation of chilliness. Though the plant loses much of its power by drying, yet Stoerck observes that, when powdered and put upon the tongue, it excites a durable sense of heat, and sharp wandering^a pains, but without redness or inflammation. The juice applied to a wound, seemed to affect the whole

* In the Cammarum the top of the flower rises much higher, and forms a more acute angle; the flowers are of a fainter blue colour, and the racemus is always shorter than that of the Napellus.

^a Reinhold, however, describes the leaves of this plant, when dry, as almost insipid. Diff. de Aconit. Napello.

nervous system; ^b even by keeping it long in the hand, or on the bosom, we are told unpleasant symptoms have been produced. That the ancients considered the Aconitum to be the most destructive of vegetable productions, appears from their fanciful derivation of its origin: “ ut ab Hecate inventum aut ex Cerberi spuma enatum “ pronunciarent;” and Ray says, “ Napellus venenorum praesenta-“ neorum facile princeps.”^d The deleterious effects of this plant, like those of most vegetable poisons, are produced by its immediate action upon the nervous energy; for of the different animals ^c which have been destroyed by it, we find but one instance, wherein upon dissection, marks of organic disease ^f were discovered, and this, as well as those mentioned in our former number respecting the Belladonna, we attribute to the action of secondary causes.

The fatal symptoms brought on by this poison, are thus stated by Haller: “ Intus adsumtus Napellus vomitum movet, convulsiones, “ rigorem, vertiginem, maniam, hypercathartes, sursum & deorsum “ erumpentes, tum ventris tumores, & alia gravissima symptomata, “ sudorem frigidum, asphyxiam.”^g Stoerck appears to be the first

who

^b The juice was applied to a wound of the finger, which not only produced pains in the hand and arm, but cardialgia, great anxiety, a sense of suffocation, syncope, &c. and the wounded part sphacelated before it came to suppuration. Rödder in Alberti Jurisp. Med. t. 6. p. 724.

^c If this be admitted, it must be referred to a peculiar idiosyncrasy of the body rather than to the power of the plant. Murray, Apparat. Med. vol. 3. p. 12.

^d Ray observes that the Napellus loses much of its virulence by being transplanted from the mountains into our gardens; and this observation has been confirmed by the experiment of D. Martinus Bernhardus a Berniz, in Ephem. Germ. ann. 2. Observ. 42. (Ray, Hist. Plant. p. 702.) and for farther confirmation see Pet. Joh. Faber in Pauth. l. 1. cap. 43.

^e The root of the Napellus is an immediate poison to almost all animals, but actual experiments with it have been made upon wolves, cats, dogs, mice, &c. See Wepfer, Hist. de Cicut. p. 176. de Napello. Phil. Transact. vol. 27. p. 488. Sprögel Diff. Exper. circa venena, p. 6. Hillefeld, p. 23. Ehrhart, vide Reinholt, Diff. cit. Cows and Goats, by being forced to eat this plant, perished. Moraeus Fil. in K. Vet. Acad. Handl. 1745. p. 217.

^f This was a wolf, wherein marks of inflammation of the stomach were discovered. Wepfer, l. c. p. 180.

^g N. 1198. l. c. These symptoms are collected from a number of fatal instances of its poisonous effects, some of which we shall mention. The root was given by way of experiment

who gave the Wolf's-bane internally, as a medicine; and since his experiments were published, in 1762, it has been generally and often successfully employed in Germany, and the northern parts of Europe, particularly as a remedy for obstinate rheumatisms: and many cases are related where this disease was of several years duration, and had withstood the efficacy of other powerful medicines, as mercury, opium, antimony, cicuta, &c. yet, in a short time, were entirely cured by the Aconitum.^h Instances are also given us of its good effects in gout, scrophulous swellings, venereal nodes, amaurosis, intermittent fevers, &c.ⁱ Bergius describes its *Virtus* to be pellens, sudorifera, diuretica, subvertiginosa; *recens* venenata: *Usus*, rheumatismus, arthritis, malum ifchiadicum.

This plant has been generally prepared as an extract or inspissated juice, after the manner directed in the Edinburgh and many of the foreign pharmacopœias,^k and like all virulent medicines, it should be first administered in small doses. Stoerck recommends two grains of the extract to be rubbed into a powder, with two drams of sugar, and to begin with ten grains of this powder two or three times a day. We find however, that the extract is often given from one grain

experiment to four condemned criminals, two at Rome, in the year 1524, and two at Prague, in 1561, of whom two soon perished, the other two, with great difficulty, recovered. Matthiol. in *Dioscorid.* p. 768. It has frequently been eaten by mistake for other plants, and proved fatal. *Willis de Anima brutor.* p. 289. *Dodon. Stirp. Pempt. L. 4. p. 442.* *Bacon, Philos. Transf. vol. 38. p. 284.* And the following remarkable fact is said to have happened at Sweden:—A person having eaten some of the fresh leaves of the Napellus, became maniacal, and the surgeon who was called to his assistance declared, that the plant was not the cause of the disorder; and, to convince the company that it was perfectly innocent, he eat freely of its leaves; but he suffered by his temerity, for soon after he died in great agony. *Moraeus, l. c. 1739. p. 41..*

^h *Stoerck libell. de stramon, &c. Contin. Exper. Libell. de Pulsatill. Nig. p. 58.* *Rosenstein, Hall Epist. vol. 5. p. 174.* *Collin Observ. pars. 2. Blom Vet. Acad. Handl. 1773. p. 258.* *Odhelius, ibid. 1776. p. 68.* *Hast, Med. Virkets tilstand, p. 307.* *Ribe, vide Reinholt Diff. p. 37.* *Comment. de rebus, vol. 2. p. 240.* *Diff. de usu salutari Extr. Acon. in Arthritide pref. Böhmer Hal. 1768. a pag 10 ad 13.* *Aug. Phil. Gesner. Beobacht a. d. Arzn. vol. 1. p. 196.* *Tode, Med. chir. Bib. vol. 2. P. 1. p. 120.* *Tritzé Mediz. Annalen. vol. 1. p. 327.* *Stöller, Beob. u. Erf. p. 146.* *Stoll Rat. Medend. P. 3. p. 167.*

ⁱ See the authors referred to above.

^k Its efficacy is much diminished on being long kept.

to ten for a dose, and Stoll, Schenckbecher, and others, increased this quantity very considerably. Instead of the extract, a tincture has been made of the dried leaves, macerated in six times their weight of spirits of wine, and forty drops given for a dose.

VERONICA BECCABUNGA. BROOKLIME SPEEDWELL.

SYNONYMA. BECABUNGA, *Pharm. Lond.* *Curt. Flor. Lond.*

VERONICA foliis ovatis serratis glabris ex alis racemosa, *Hal.*

Stirp. Helv. n. 534. *Anagallis Aquatica vulgaris* sive *Becabunga*,

Park. Theat. 1236. *Anagallis Aquatica minor*, folio subrotundo.

Baub. pin. 252. *Anagallis seu Becabunga.* *Gerard*, 620.

Class Diandria. *Ord.* Monogynia. *L. Gen. Plant.* 25.

Eff. Gen. Ch. *Cor.* Limbo 4-partito, lacinia infima augustoire.

Capsula bilocularis.

** *Corymboſo-racemosæ.*

Sp. Ch. V. racemis lateralibus, fol. ovatis planis, caule repente.

THE root is perennial, creeping, jointed, and from each joint sends forth many long slender fibres; the leaves are thick, oval, smooth, obtusely serrated, of a pale-green colour, and stand upon the stem in pairs, either sessile, or upon very short footstalks; the stem is round, jointed, creeping, smooth, succulent, often of a reddish brown colour, and from eight to twelve inches high; the racemi or flower spikes, are lateral, opposite, bracteated, and terminated by the



Ternstroemia Beccabunga.

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the flowers, which are of a faint blue colour, and divided into four small roundish leaves ; the calyx is quadripartite. This plant is very common in ditches and shallow streams.

The leaves and stem of Brooklime have a bitterish subastringent taste, but manifest little or no acrimony, nor any peculiar odour : by chemical experiments they appear to be subacid, and possess some degree of astringency ; these qualities, however, are common to almost all fresh vegetables, and afford no proof of their medical powers.

This plant was formerly considered of much use in several diseases, and was applied externally to wounds and ulcers ; but if it have any peculiar efficacy, it is to be derived from its antiscorbutic virtue. As a mild refrigerant juice it is preferred where an acrimonious state of the fluids prevails, indicated by prurient eruptions upon the skin, or in what has been called the hot scurvy ; it is ordered in the London Pharmacopœia as an ingredient in the succus cochliariæ compositus, probably with a view to correct the pungency of the cress. Rutty says, “ *Succus ejus saponaceus est, aperiens, & majori copia sumptus, alvum movet commodissime.* ” We must, however, acknowledge, that we should expect equal benefit from the same quantity of any other bland fresh vegetable matter taken into the system. To derive much advantage from it, the juice ought to be used in large quantities, or the fresh plant eaten as food.

FERULA ASSAFÆTIDA. ASAFOETIDA GIGANTIC
FENNEL.

SYNONYMA. Planta umbellifera, tripedalis, erecta, ramosa, glauca, flore luteo, *Hope, Phil. Trans. vol. 75, p. 36.* ASAFOETIDA umbellifera Levestico affinis, foliis instar Pœoniæ ramosis; caule pleno maximo; semine foliaceo nudo solitario; Brancæ ursinæ ‡ vel pastinacæ simili; radice asam fœtidam fundente. *Kaempfer Amœnit. Exot. p. 535.* Gummi-resia, Asafœtida, *Pharm. Lond. & Edin.* Hingifeh *Perſarum.* Altiht *Arabum,* et a quibusdam creditur Σιλφιον vel στοις σιλφιος *Dioscor. Theophrast. Hippoc. &c.* Laſer et Laſerpitium, *Latinorum.*

Class Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 343.

Eſſ. Gen. Ch. *Fructus* ovalis, compresso-planus, ſtriis utrinque 3.

Spec. Ch. *F.* Foliis alternatim ſinuatis obtufis.

LINNÆUS has given the specific character according to Kaempfer's representation of the Asafœtida plant, which differs in many respects from the figure here annexed, which is taken from that communicated to the Royal Society by the late Dr. Hope, and published in the 75th volume of the Philosophical Transactions: and this difference being ſo conſiderable as to indicate more than a mere botanical variety, Sir Joseph Banks thinks it probable that Asafœtida may be produced from different species of the ferula. Dr. Hope was undoubtedly the first who cultivated the Asafœtida plant in Britain, or perhaps in Europe, and his accurate description of it, as it grew

‡ Branca ursina is the *Heracleum Sphondylium* of Linnæus.



Ferula Assa-foetida

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in the botanical garden near Edinburgh, in the year 1784, is inserted below.* Though Asafœtida was formerly in great estimation both as a medicine and a sauce, yet we had no particular account of the plant till Kaempfer returned from his travels in Asia, and published his *Amœnitates Exoticæ* in the beginning of the present century. As he saw the plant growing, and describes it from his own observation, we have collected the following general description from the history he has given :

It is a native of Persia, the root is perennial, tapering, ponderous,

* *PLANTA umbellifera, tripedalis, erecta, ramosa, glauca, flore luteo.*

Radix perennis.

Folia radicalia sex, procumbentia, trilobo-ovata, multoties pinnatim divisa ; foliolis incisis, subacutis, subdecurrentibus ; petiolo communi superne plano, linea elevata longitudinaliter per medium decurrente.

Caulis bipedalis, erectus, teretiusculus, annuus, leviter striatus, glaber, nudus præter unam circa medium foliorum imperfectorum conjugationem ; petiolo membranaceo concavo.

Rami nudi, patuli ; quorum tres inferi, alterni, sustinentur singuli folii imperfecti petiolo membranaceo concavo.

Quatuor intermedii verticillati sunt. Supremi ex apice caulis octo, quorum interni erecti.

Omnis hi rami summitate sustinent umbellam compositam sessilem terminalem, et præterea 3—6 ramulos externe positos, umbellas compositas ferentes.

Hoc modo, rami inferiores sustinent 5, raro 6 ramulos ; intermedii 3 vel 4 ; superiores 1 et 2.

CAL. *Umbella universalis* radiis 20—30 constat.

———— *partialis* flosculis subsessilibus 10—20.

Umbella composita sessilis convexo-plana.

———— ————— pedunculata hæmispherica.

Involucrum universale nullum.

———— *partiale* nullum.

Perianthium proprium vix notabile.

COR. *universalis* uniformis.

Flosculi umbellæ sessilis fertiles.

———— ————— pedunculatae plerumque abortiunt.

propria petalis quinque æqualibus, planis, ovatis : primo patulis, dein reflexis, apice ascendentibus.

STAM. *Filamenta* 5, subulata, corolla longiora, incurvata. *Antheræ* subrotundæ.

PIST. *Germen* turbinatum, inferum.

Styli duo, reflexi.

Stigmata apice incrassata.

PER. nullum : fructus oblongus, plano-compressus, utrinque 3 lineis elevatis notatus est.

SEM. duo, oblonga, magna, utrinque plana, 3 lineis elevatis notata.

Planta odorem alliaceum diffundit. Folia, rami, pedunculi, radix, truncus, seicti succum fundunt laetum, sapore et odore Asie foetidæ.

and

and increases to the size of a man's arm or leg, covered with a blackish coloured bark, and near the top beset with many strong rigid fibres; the internal substance is white, fleshy, and abounds with a thick milky juice, yielding an excessively strong fetid alliaceous smell ; the stalk is simple, erect, straight, round, smooth, striated, herbaceous, about six or seven inches in circumference at the base, and rises luxuriantly to the height of two or three yards, or higher ;^a radical leaves six or seven, near two feet long, bipinnated, pinnulæ alternate, smooth, variously sinuated, lobed, and sometimes lance-shaped, of a deep green colour, and fetid smell ; the umbels are compound, plano-convex, terminal, and consist of many radii : the seeds are oval, flat, foliaceous, of a reddish brown colour, rough, marked with three longitudinal lines, have a porraceous smell, and a sharp bitter taste : the petals Kaempfer did not see, but supposes them in number five, minute, and white.

This plant is said to vary much according to the situation and soil in which it grows, not only in the shape of the leaves, but in the peculiar nauseous quality of the juice which impregnates them ; this becomes so far altered that they are sometimes eaten by the goats.

Asafœtida is the concrete juice of the root of this plant, which is procured in the following manner on the mountains in the provinces of Chorafaan and Laar in Persia. At that season of the year when the leaves begin to decay, the oldest plants are selected ^b for this purpose. First the firm earth which encompasses the root, is rendered light by digging, and part of it cleared away, so as to leave a portion of the upper part of the root above the ground ; the leaves and stalk are then twisted off and used with other vegetables for a covering to screen it from the sun, and upon this covering a stone is placed to prevent the winds from blowing it down ; in this state the root is left for forty days, after which the covering is removed, and the top of the root cut off transversely ; it is then screened again from the sun for forty-eight hours, which is thought a sufficient time for the juice to exude upon the wounded surface of the root, when the juice is scraped off by a proper instrument, and exposed to the sun

^a *Caulis*, in orgyjæ, sesquiorgyjæ, vel majorem longitudinem luxuriosè exsurgens, crassite in imo quanta manū complexum superat.

^b Radix quadrienniō minor parum lactescit & nunquam secatur.

to harden: this being done, a second transverse section of the root is made, but no thicker than is necessary to remove the remaining superficial concretions which would otherwise obstruct the farther effusion of fresh juice; the screening is then again employed for forty-eight hours, and the juice obtained a second time, as before mentioned. In this way the Asafœtida is eight times repeatedly collected from each root; observing, however, that after every third section, the root is always suffered to remain unmolested for eight or ten days, in order that it may recover a sufficient stock of juice. Thus, to exhaust one root of its juice, computing from the first time of collecting it to the last, a period of nearly six weeks is required; when the root is abandoned, and soon perishes.

The whole of this business is conducted by the peasants who live in the neighbourhood of the mountains where the drug is procured; and as they collect the juice from a number of roots at the same time, and expose it in one common place to harden, the sun soon gives it that consistence and appearance in which it is imported into Europe.

Asafœtida has a bitter, acrid, pungent taste, and is well known by its peculiar nauseous fetid smell, the strength of which is the surest test of its goodness; this odour is extremely volatile, and of course the drug loses much of its efficacy by keeping. According to Kaempfer's account, the juice is infinitely more odorate when recent than when in the state brought to us: *Affirmare ausim, unam drachmam recens effusam, majorcm spargere fœtorem, quām centum libras vetustioris quem siccum venundant aromatarii nostrates.* "We have this drug in large irregular masses of a heterogeneous appearance, composed of various shining little lumps or grains, which are partly whitish, partly of a brownish or reddish, and partly of a violet hue. Those masses are accounted the best which are clear, of a pale reddish colour, and variegated with a great number of fine white tears. Asafœtida is composed of a gummy and a resinous substance, the first in largest quantity. Its smell and taste reside in the resin, which is readily dissolved and extracted by pure spirit, and, in a great part, along with the gummy matter, by water.^c"

^c Lewis's Mat. Med.

Asafœtida is a medicine in very general use, and is certainly a more efficacious remedy than any of the other fetid gums: it is most commonly employed in hysteria, hypochondriasis, some symptoms of dyspepsia, flatulent colics, and in most of those diseases termed nervous: but its chief use is derived from its antispasmodic effects; and it is thought to be the most powerful remedy we possess for those peculiar convulsive and spasmodic affections which often recur in the first of these diseases, both taken into the stomach and in the way of enema. It is also recommended as an emmenagogue, anthelmintic, expectorant,^d antiasthmatic, and anodyne. Where we wish it to act immediately as an antispasmodic, it should be used in a fluid form, as that of tincture.

In the London Pharmacopœia, a spirituous tincture of it is directed, and it is also an ingredient in the Pilulæ e Gummi. In the Edinburgh Pharmacopœia, *Asafœtida* is ordered in the Tinctura fuliginis, in the pilulæ gummosæ, and in the form of tincture with the Spt. Sal. ammon. vinos.

^d Dr. Cullen prefers it to the Gum Ammon as an expectorant. *Asafœtida* should therefore have a double advantage in spasmodic asthmas.



Tormentilla erecta

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TORMENTILLA ERECTA. COMMON TORMENTIL, OR
UPRIGHT SEPTFOIL.

SYNONYMA. TORMENTILLA, *Pharm. Lond. & Edin.* TORMENTILLA OFFICINALIS, *Curt. Flor. Lond.* Fragaria tetrapetala, foliis caulinis sessilibus quinatis. *Hal. Stirp. Helv.* n. 1117. TORMENTILLA sylvestris, *Baub. Pin.* 326. Pentaphyllum aut potius Heptaphyllum, flore aureo tetrapetalum, Tormentilla dictum. *Hist. Oxon.* II. 190.

Class Icosandria. *Ord.* Polygynia. *L. Gen. Plant.* 635.

Eff. Gen. Char. *Cal.* 8-fidus. *Petala* 4. *Sem.* subrotunda, nuda, receptaculo parvo exsucco affixa.

Spec. Char. T. caule erectiusculo, foliis sessilibus..

THE root is perennial, thick, roundish, irregularly conical, knobbed, and covered with bark of a dark brown colour; the internal substance is dense, and has a reddish tinge; it sends forth many stems, which grow about a span high; they are round, slender, firm, somewhat hairy, more or less erect, and branched towards the top. The leaves upon the stalk are generally divided into seven, but those upon the branches are commonly five; of these, three are larger than the others; they are all of an elliptical shape, deeply serrated, villous, and the upper surface is of a deeper green colour than the under. The flowers stand singly upon long peduncles, which spring from the alæ of the leaves, each flower consisting of four small, roundish, emarginated, yellow petals; the calyx is cut into eight unequal segments; the pistilla are commonly eight, and contain as many seeds. This plant is common in dry pastures, and usually flowers in June. It is distinguished from the *Tomentilla reptans*, by its sessile leaves, its smaller petals, and its more erect stem.

The root is the only part of the plant which is used medicinally ; it has a strong styptic taste, but imparts no peculiar sapid flavour. As a proof of its powerful astringency, it has been substituted for oak bark in the tanning of skins for leather.^a This root has been long held in great estimation by physicians, as a very useful astringent ; and as the resin ^b it contains is very inconsiderable, it seems more particularly adapted to those cases where the heating and stimulating medicines of this class are less proper ; as phthisical diarrhoeas, diarrhoea cruenta, &c. Dr. Cullen ^c thinks “ it has been justly commended for every virtue that is competent to astringents,” and says, “ I myself have had several instances of its virtues in this respect ; and particularly I have found it, both by itself and as joined with gentian, cure intermittent fevers ; but it must be given in substance, and in large quantities.” Rutty recommends it in these words : “ Ulcera vetera & putrida sanat vino vel aqua decocta collutione & inspersu. In vino cocta optime deterget & roberat, in ulceribus scorbuticis oris, gutturis, & faucium ac in gingivis dissolutis, sanguinem stillantibus. Decocta ad appetitum deperditum maxime valet, tonum ventriculi restituens, & fordes ejus abstergens. Non est vegetabile quod in fluxionibus alvi efficacius sit. In dysenterea epidemica quidam in ore tenent ad præcavendum contagium. In fluxu sanguinis, fluore albo, & mictu involuntario valet.”^d

This root may be given in powder from half a dram to one dram or more for a dose, but it is more generally given in decoction, and the following form is recommended by Lewis : An ounce and an half of the powdered root is directed to be boiled in three pints of water to a quart, adding, towards the end of the boiling, a dram of cinnamon : of the strained liquor, sweetened with an ounce of any agreeable syrup, two ounces or more may be taken four or five times a day.

Tormentil is ordered in the pulvis e creta compositus of the London Pharmacopœia.

^a Bartholini A&T. Med. Hafn. v. 1. p. 88. and it has been observed, that the leather has been perfected in less time than when oak bark was used. Mus. Rust. vol. 2. n. 12. p. 51. ^b It gives out its astringency both to water and rectified spirit, most perfectly to the latter. The extracts obtained by inspissation, are intensely styptic, the spirituous most so. Lewis's Mat. Med. 654.

^c Cullen's Mat. Med. vol. 2. p. 36.

^d Rutty's Mat. Med. 521.



Hypericum *perforatum*

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HYPERICUM PERFORATUM. PERFORATED St. JOHN's
WORT.

SYNONYMA. HYPERICUM, *Pharm. Lond.* HYPERICUM caule terete, alato, ramosissimo, foliis ovatis perforatis. *Hal. Stirp. Helv.* n. 1037. HYPERICUM vulgare sive perforata, caule rotundo, foliis glabris. *J. Bauhin III.* 382. HYPERICUM vulgare, *Bauk. pin.* 279. *Raii Synop.* 342.

Class Polyadelphia. *Ord.* Polyandria. *L. Gen. Plant.* 902.

Eff. Gen. Ch. *Cal.* 5-phyllo. *Petala* 5. *Nect.* o. *Capsula.* *Aiton's Hortus Kewensis.*

Spec. Ch. H. Floribus trigynis, caule ancipiti, fol. obtusis pellucido-punctatis.

THIS species of the Hypericum generally grows to the height of a foot and a half; the root is perennial, ligneous, divided and subdivided into many small branches, and covered with a straw-coloured bark; the stalks are round, smooth, of a light colour, and towards the top send off many opposite floriferous branches; the leaves are without footstalks, and placed in pairs; they are entire, oval, and beset with a great number of minute transparent vesicles, || which have the appearance of small perforations through the disc, and hence the specific name, perforatum.

The flowers are numerous, pentapetalous, terminal, of a deep yellow colour, and grow in a corymbus, or in clusters, upon short

|| Folia enim innumeris scatent foraminibus, iisque adeo minutis, ut visum effugiant, nisi ipsa folia sole objecta inspiciantur. Matthiol. in Lioscord. p. 668. And these vesicles, or glands, have been found to contain an essential oil of a terebinthinate quality. Geoffroy Mat. Med. Gadd thinks that it approaches nearer to the gum-resin, Lac. Vet Acad. Handl. 1762. p. 119.

peduncles ; each petal is of an irregular oval shape, and on the under side near the apex, is marked with many blackish dots ; the calyx consists of five persistent acute leaves ; the stamens are numerous, and commonly unite at their bases into three portions, or bundles ; the antheræ are yellow, and marked with a small black gland ;* the styli are three, and the capsule has three cells, which contain many small oblong brownish seeds. It grows commonly in woods and uncultivated grounds, and flowers in July.

Bergius describes the *Hypericum quadrangulum* instead of the *perforatum*, and thinks it the better officinal plant. “ In pharmacopoliis nostris indiscrete colligunt *Hypericum perforatum* & *quadrangulum* ; quod perinde quoque esse poterit, cum ambæ species puncta nigrecantia gerant ; *quadrangulum* vero plurima.”^a *Hypericum* has a bitterish subastringent taste, and a sweetish smell. It was in great repute with the antients, who prescribed it in hysteria, hypochondriasis, and mania : they also imagined that it had the peculiar power of curing demoniacks, and thence obtained the name of *Fuga dæmonum*:^b it was also recommended internally for wounds, bruises, ulcers, hæmoptysis, mictus cruentus, gravel, dysentery, agues, worms,^c and outwardly as an anodyne, and as a discutient and detergent. However it is now very rarely used, and its name is omitted in the *Materia Medica* of the last edition of the Edinburgh *Pharmacopœia*. In the London *Pharmacopœia* the flowers only are directed to be used, as containing the greatest proportion of the resinous oily matter in which the medical efficacy of the plant is supposed to reside. The dark puncta of the petals and the capsules, afford this essential oil, which is contained in minute vesicles, or glands, and gives a red colour to rectified spirit, and to expressed oils : the latter has been long known in the shops by the name of *Oleum Hyperici*.^d

* Mr. Curtis observes, that a little black gland on the anthera, distinguishes this species at one view. *Flor. Lond.*

^a Bergius *Mat. Med.* 641.

^b Scripsere quidam *Hypericum* adeo odisse dæmones, ut ejus suffitu statim avolent. *Matthiol. l. c.*

^c See Haller, l. c. Alston's *Mat. Med.* vol. 2. p. 150. Bergius, l. c. Murray's *Apparatus*, vol. 3. p. 518.

^d This colouring matter gives a good die to wool. Gadd. l. c. aliique.



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Amomum *Zingiber.*

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AMOMUM ZINGIBER. NARROW-LEAVED GINGER.

SYNONYMA. ZINGIBER, *Pharm. Lond. & Edin.* AMOMUM ZINGIBER, *Jacquin Hort. Vindob.* vol. 1. t. 75. ZINGIBER, *Browne's Jam.* 119, *Sloane's Jam.* 1. p. 163. *Inschi. Rheed. Mal.* Z. angustiori folio, &c. *Pluk. Alm.* ZINGIBER MAJUS, *Rumph. Amb.* 5. p. 156. ζιγγίερις, *Dioscorid.* ζιγγίερ, *Galen.*

Class. Monandria. *Order.* Monogynia. *L. Gen. Plant.* 2.

Eff. Gen. Ch. Cor 4-fida : lacinia prima patente.

Sp. Ch. A. scapo nudo, spica ovata.

THE root is perennial, firm, knotted, of a compressed roundish form, beset with transverse rugæ, covered with ash coloured bark, partly of a purplish tinge, and sends forth many long fibres and off-sets ; the internal substance of the younger roots is softish, fleshy, and greenish ; of the older, it is compact, fibrous, whitish, and when powdered has a yellowish appearance : the stalks are about three feet high, round, inclosed in an imbricated membranous sheathing ; the leaves are sword-shaped, smooth, pointed, entire, and stand alternately upon the sheathes of the stalk ; the scapus, or flower-stem, rises about a foot high, it is erect, round, alternately sheathed like the stalks, without leaves, and terminates in an oval, obtuse, bracteal, imbricated spike ; the corollæ, or flowers, appear between the bracteal scales of the spike, two or three at a time ; they are of a dingy yellow colour, monopetalous, tubular, and cut into three unequal, acute, segments, which have their points curled backwards ; the nectary occupies the faux or mouth of the tube of the corolla,

and has a bilabiated appearance ; the lip is obtusely trifid, of a red-dish purple colour, and marked with many yellowish dots : but what seems like the upper lip is the stamen, or filament, which is convex outwardly, concave within, and gradually tapers from its base to its apex, where it is coloured like the nectary. The antheræ are two, oblong, whitish, and lodged together in the cavity of the stamen : the style is long and filiform : the stigma obtuse and villous : the capsule is three-celled, and contains many seeds.

The Ginger plant is a native of the East-Indies, ^a and is said to grow in the greatest perfection on the coast of Malabar and Bengal; ^b but it is now plentifully cultivated in the warmer parts of America, ^f and in the West-India islands, from whence chiefly it is imported into Europe. In 1731, it was first introduced into this country by Mr. P. Miller, ^c and is still carefully cultivated in the dry stoves of the curious. The flowers have a sweet fragrant smell, and the leaves and stalks, especially when bruised, also emit a faint spicy odour, but the hot acrid aromatic taste is entirely confined to the root.

" In Jamaica, Ginger attains its full height, and flowers about August or September, and fades about the close of the year. When the stalks are entirely withered, the roots are in a proper state for digging : this is generally performed in the months of January and February. After being dug, they are picked, cleansed, and gradually seethed, or scalded in boiling water ; they are then spread out, and exposed every day to the sun, till sufficiently dried ; and after being divided into parcels of about 100lb. weight each, they are packed

^a The following observation, made by Rumphius, seems however to deserve some notice : *Quondam omne Zingiber petebatur ex illa Africæ parte, quæ mari rubro adjacet tam intra quam extra illud, tum Arabia Trogloditica dicta, cujus incolæ hodie ab Arabibus vocantur Zingi seu Zaïgi h. e. nigri seu adusti Æthiopes, unde & nomen Zingiber seu Zingibel ortum duxit, ac si disceretur, radices ex Æthiopia, atque hinc jam innotuit antiquis etiam scriptoribus, uti *Dioscorid. lib. 2. cap. 154. Galeno. lib. 6. med. simp. ubi dicit Zingiber deferri ex Barbaria*, per quam vocem intelligenda est orientalis Africæ plaga. vide *Herb. Amboin. vol. 5, p. 157.* ^b Rumph. l. c. ^f India Orientali per Hispanos ac præsertim per Franciscum de Mendoza, filium imperatoris Anthonii de Mendoza cum aliis aromaticis herbis in novam Hispaniam deductum est, teste *Monardo simp. Medic. cap. 18.* Rumphius, l. c.—Upon the death of Mendoza, these plants were neglected, and all lost but the Ginger. Ginger is said by some to grow wild in America, but Jacquin says, " *Sylvestrem in America non vidi.*"*

^c Aiton's Hort. Kewen.

in bags for the market: this is called the Black Ginger."^d White Ginger is the root of the same plant, but instead of the roots being scalded, by which they acquire the dark appearance of the former, each root is picked, scraped, separately washed, and afterwards dried with great care; of course more than a double expense of labour is incurred, and the market price is proportionably greater.* Black Ginger loses part of its essential oil by being thus immersed in boiling water;^e on this account it is less useful for medical and other purposes than the white, which is always good when perfectly sound and free from worm-holes: but that imported from the East-Indies is stronger than any we have from Jamaica. Ginger gives out its virtues perfectly to rectified spirit, and in a great measure to water. According to Lewis,^f its active principles are of a remarkably fixed nature; for a watery infusion of this root being boiled down to a thick consistence, dissolved afresh in a large quantity of water, and strongly boiled down again, the heat and pungency of the root still remained, though with little or nothing of its smell. Ginger is generally considered as an aromatic, less pungent and heating to the system, than might be expected from its effects upon the organs of taste. Dr. Cullen thinks, however, that there is no real foundation for this remark.^g It is used as an anti-spasmodic and carminative. The cases in which it is more immediately serviceable, are flatulent colics, debility and laxity of the stomach and intestines, and in torpid and phlegmatic constitutions to excite brisker vascular action. It is seldom given but in combination with other medicines. In the Pharmacopœias it is directed in the form of a syrup and a condiment,^h and in many compositions it is ordered as a subsidiary ingredient.

^d Long's History of Jamaica, p. 700.

* Rumphius remarks also, " Rubræ speciei radices crassiores sunt, magisque nodosæ, externe plerumque cinerea primum, atque sub hac purpurea rubente obductæ pellicula, uti & ipsarum caro ad oras rubet. &c. l. c.

^e We mention this on the authority of Jacquin, vide Hort. Vindob. vol. 1, No. 75. ^f Mat. Med. Ackin's edition, p. 687. ^g Cullen's Mat. Med. vol. 2, p. 206.

^h For this purpose the root should not be older than four or five months. Of the very young roots the aromatic taste is peculiarly grateful. " Junior recens crudaque radix in Martinica in mensis apponitur, parvaque ejusdem portio solet cum bubula elixa comedii. Est etiam tunc insigniter acris, sed aroma longe gratius possidet, quam exsiccata." Jacquin. l. c.

BUBON GALBANUM. LOVAGE-LEAVED BUBON.

SYNONYMA. BUBON GALBANUM. *Jacquin Hort. Vindob.* vol. 3, p. 21. ANISUM AFRICANUM FRUTESCENS, FOLIO ANISI, GALBANIFERUM. *Pluken. Alm.* p. 31, t. 12. FERULA AFRICANA GALBANIFERA, FOLIO ET FACIE LIGUSTICI. *Herm. Parad.* p. 163. t. 163. GUMMI-RESINA. GALBANUM. *Pharm. Lond. & Edin.* Χαλαζάν *Dioscorid.* Ταλβάν *Græc.*

Class Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 350.

Eff. Gen. Ch. *Fructus* ovatus, striatus, villosus.

Sp. Ch. B. foliolis rhombeis dentatis striatis glabris, umbell. paucis. L. B. Foliolis ovato-cuneiformibus acutis argute serratis, umbellis paucis, seminibus glabris, caule frutescente glauco. *Aiton's Hort. Kewen.*

THE stalk is shrubby, several feet high,^a slender, purplish, covered with a glaucous-coloured exudation,^b round, bending, knotted or jointed, towards the bottom woody and naked, but towards the top sending off leaves and branches; the compound leaves rise from the striated sheathes of the stem, they are subtripinnated, the uppermost subbipinnated, and have strong round ribs; the simple leaves are rhomboidal, acute, thickish, of a sea-green colour, veined, subtrilobed, cut, or irregularly serrated, but near the base entire, and some leaves upon the upper branches are somewhat wedge-shaped; the

^a Jacquin says five feet or more; but this plant is now growing in the King's garden at Kew, four yards high.

^b This observation applies to the younger plants, or to the upper and softer part of the stalk.



Bubon Galbanum:

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principal umbel terminates the stem, and is large, plano-convex, and composed of numerous radii; the lateral umbels are few, and grow upon slender pendent branches; the leaflets of the general involucrum are about twelve, narrow, lanceolated, membranous, whitish, and bent downwards; of the partial involucrum they are six, of the same shape and patent. The flowers are all hermaphrodite, fertile, first open at the circumference of the umbel, and followed successively by those towards the centre; the petals are equal, patent, have their points turned inwards, and are of a greenish yellow colour; the stamina are greenish, longer than the petals, and the antheræ are yellow; the germen is round and narrow at the base, the styles are two, short and tapering; the seeds are two, brownish, oval, with smooth uneven surfaces, and marked with three elevated lines. The whole plant is smooth, has an aromatic smell, and an acrid biting taste. It is a native of Africa, about the Cape of Good Hope, and flowers in June and July. It was first introduced into Britain by Mr. John Gerard in 1596,^c and all the four species described by Linnæus have been since cultivated by Mr. Miller. Through the industry of Mr. Masson, a new species of the Bubon (the *lævigatum*) has been discovered at the Cape of Good Hope, and is now in the Royal garden at Kew. Notwithstanding we have represented the Bubon Galbanum as the plant yielding the officinal drug; yet it is still a matter of doubt which species of these umbelliferous plants really produces it; and although we have referred to Herman's *Ferula Africana*, yet we wish to observe, that he thought this matter still uncertain.^d It seems highly probable that Galbanum is obtained from different species of the Bubon,^e though, upon the authority of Linnæus, the London, Edinburgh, and other medical colleges, confine their reference to the species we have figured.

The juice is obtained partly by its spontaneous exudation

^c Aiton's Hort. Kew. ^d *Genuina illa planta, quæ Galbanum officinarum fundit, nostri sæculi Botanicis nondum innotuit. Ferulaceam esse veteres docent omnes, quænam vero species sit, non constat.* Parad. Bat. I. c.

Hermann is certainly a good authority; he was an intelligent physician, and practised many years in the East-Indies, about the latter end of the last century, and also at the Cape of Good Hope: his judgment therefore, as well as his fidelity, is at least equal to that of Plukenett's, which Linnæus prefers.

^e *Plures extare possunt stirpes, quæ succum Galbano similem stillant, ut de variis lachrymis quæ inter se convenient & è diversis stirpibus leguntur, nobis compertum est.* Herm. I. c.

from the joints of the stem, but more generally and in greater abundance by making an incision in the stalk a few inches above the root, from which it immediately issues, and soon becomes sufficiently concrete to be gathered.

Galbanum is commonly imported into England from Turkey, and from the East-Indies, in large softish ductile pale-coloured masses, which by age acquire a brownish yellow appearance; these are intermixed with distinct white grumes or tears, which are accounted the best part of the mass; but the separate hard tears are externally of a ferruginous colour, and always preferred to the mass itself. Geoffroy distinguishes the former into *Galbanon en larmes*, and the latter into *Galbanon en pains*. Spielman mentions a liquid sort of Galbanum, which is brought from Persia, “ Prostat etiam interdum Galbanum liquidum ex Persia, consistentia terebinthinæ instructum, cui multæ fæces nigræ commixtæ sunt, tempore ad fundum secedentes, odorem resinæ, nunquam Galbani, habet.”^f Galbanum has a strong unpleasant smell, and a warm bitterish acrid taste; “ like the other gummy resins it unites with water by trituration into a milky liquor, but does not perfectly dissolve, as some have reported, in water, vinegar, or wine. Rectified spirit takes up much more than either of these menstrua, but not the whole: the tincture is of a bright golden colour. A mixture of two parts of rectified spirit, and one of water, dissolves all but the impurities, which are commonly in considerable quantity.”^g — In distillation with water, the oil separates and rises to the surface, in colour yellowish, in quantity about one-twentieth of the weight of the Galbanum. Newman observes, that the empyreumatic oil is of a blue colour, which changes in the air to a purple.

Galbanum, medicinally considered, may be said to hold a middle rank between Asafœtida and Ammoniacum; but its fetidness is very inconsiderable, especially when compared with the former, it is there-

^f Mat. Med. p. 560. ^g Lewis's Mat. Med. by Dr. Aikin, p. 314.

The Galbanum colour was a prevailing fashion with the Romans.

Reticulumque comis auratum ingentibus implet,

Cœrulea indutus scutulata, aut galbana rasa;

JUVENAL, Sat. 2, l. 96.

And Martial, speaking of an effeminate person, says, Galbanos habet mores. Lib. 1. Epig. 97. — Commentators differ about the colour of Galbana Rasa; we have described the Galbanum flower to be of a greenish yellow.

fore,



Tussilago

Taraxacum

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fore accounted less antispasmodic, nor is it supposed to affect the bronchial glands so much as to have expectorant powers equal to those of the latter; it has the credit however of being more useful in hysterical disorders, and of promoting and correcting various secretions and uterine evacuations. Externally Galbanum has been applied to expedite the suppuration of inflammatory and indolent tumours, and medically as a warm stimulating plaster. It is an ingredient in the pilulæ e gummi, the emplastrum lithargyri cum gummi, of the London Pharm. and in the empl. ad clavos pedum of the Edin.

TUSSILAGO FARFARA. COLTSFOOT.

SYNONYMA. PETASITES SCAPO UNIFLORO, FLORE RADIATO,
Hal. Stirp. Helv. n. 143. BECHIUM, *Dodon. Pempt.* 586.
 TUSSILAGO VULGARIS. *Baub. Pin.* 197. *Zannich. Venez.* t. 266.
 TUSSILAGO. *Clus. Hist.* 140. *Camer. Epit.* 590. *Gerard,* 811. *Par-*
kinson, 1220. *Raii Hist. Plant,* 259. TUSSILAGO FARFARA. *Curtis*
Flor. Lond. *Relhan. Flor. Cantab.* *Withering. Botan. Arrang.* p.
 904. *Ενχιττον** *Dioscorid. Hippoc. &c.*

Class Syngenesia. *Ord.* Polygamia Superflua. *L. Gen. Pl.* 952.

Eff. Gen. Ch. *Recept.* nudum. *Pappus simplex.* *Cal.* squamæ
 æquales, discum æquantes, submembranaceæ.

Sp. Char. T. scapo unifloro imbricato, fol. subcordatis angulatis
 denticulatis.

THE root is long, round, tapering, creeping, and sends off many small short fibres; the stalks are furrowed, downy, simple, six or eight

* Supposed to be derived from Τυσσι, tussis, hence Tussilago.

inches

inches high, beset with several scaly leaves, of a brownish pink colour, and closely embracing the stem ; the leaves are obtusely heart-shaped, angular, irregularly indented, above of a bright green colour, beneath white, downy, and stand upon long roundish radical foot-stalks ; the flowers are compound, large, and yellow ; *the florets in the disc* are hermaphrodite, tubular, the limb is cut into five acute segments, which curl outwardly ; the antheræ, by uniting, form a tube, but their apices are separate and pointed ; the germen is short, the style filiform, longer than the antheræ, and the stigma is round : *the florets at the circumference* are female, tubular at the base, and the limb is long and linear ; the germen is oblong ; the stigma bifid ; the seed is oblong, and of a pale-brown colour, crowned with simple down ; the calyx is cylindrical, and the leaflets or squamæ are oblong, pointed, and alternately narrower. It is common in moist clayey places, and the flowers appear sometime before the leaves, in March or April.

The sensible qualities of *Tussilago* are very inconsiderable ; it has a rough mucilaginous taste, but no remarkable smell. The leaves have always been of great fame, as possessing demulcent and pectoral virtues ; of course, it is esteemed useful in pulmonary consumptions, coughs, asthmas, and in various catarrhal symptoms.^a Fuller, in his *Medicina Gymnaistica*,^b recommends *Coltsfoot* as a valuable medicine in scrophula ; and Dr. Cullen, who does not allow it any powers as a demulcent and expectorant, found it serviceable in some strumous affections.^c It may be used as tea, or given in the way of infusion, to which liquorice-root or honey, may be a useful addition.

^a We might, without exception, cite every writer upon the *Materia Medica*. Percival found it also useful in hectic diarrhoeas. *Essays Med. & Exper.* vol. 2. p. 224. Cartheuser advises it to be given with the roots of *Dandelion*. *Mat. Med.* 416. The juice, liberally drunk, has been beneficial in calculous complaints. *Comm. Lit. Nor.* 1736, p. 194. ^b p. 84.

^c Every part of the plant has been medicinally employed for the same purpose, but more usually the leaves, and these are the principal ingredient in the British herb tobacco. It is remarkable, that the smoking of this plant has the recommendation of Dioscorides, Galen, Pliny, Boyle, &c. *Et adhuc hodie plebs in suecia instar tabaci contra tussim fugit.* *Lin. Flor. Suec.* p. 289, and under the direction of Pliny it is certainly an efficacious remedy—in singulos haustus, passum gustandum est. *lib. 26. c. 6. p. 651.*



Plantago major

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PLANTAGO MAJOR. COMMON GREAT PLANTANE,
Or, WAY-BREAD.

SYNONYMA. PLANTAGO. *Pharm. Edin.* PLANTAGO foliis petiolatis, ovatis, glabris; spica cylindrica. *Hal. Stirp. Helv.* n. 660. PLANTAGO latifolia sinuata, *Baub. Pin.* 189. PLANTAGO simpliciter dicta. *Raii Hist. Plant.* 876. PLANTAGO latifolia vulgaris. *Parkinson,* 493. PLANTAGO VULGARIS. *Gerard.* 419. PLANTAGO MAJOR. *Curtis, Flor. Lond. Relhan. Flor. Cantab.* p. 61. *Withering, Bot. Arrang.* 142. *αρνογλωσσον* *Dioscorid.** (lingua agnina) Cl. Aiton pro varietatibus habet
 α Plantago latifolia vulgaris. *Park. Theat.* 493.
 β Plantago major, panicula sparsa. *Baub. Hist.* 3. p. 503.
 γ Plantago latifolia rosea, floribus quasi in spica dispositis. *Baub. Pin.* 189. *vide Hort. Kew.*

Class. Tetrandria. *Ord.* Monogynia. *L. Gen. Plant* 142.

Eff. Gen. Ch. *Cal.* 4-fidus. *Cor.* 4-fida: limbo reflexo. *Stamina* longissima. *Caps.* 2-locularis, circumscissa.

Sp. Ch. P. foliis ovatis glabris, scapo tereti, spica flosculis imbricatis.

THE root is perennial, short, thick, and puts forth several long whitish fibres, which strike down in a perpendicular direction: the leaves are oval, procumbent, irregularly subdentated, of a pale green colour, ribbed; ribs, commonly seven, often five, and sometimes nine: the footstalks are long, concave above, and proceed from the root; the flower-stems are generally three or four, about a span high, downy,

* (*Plantago Media*) It has also been named from the number of ribs, or nerves of the leaf, as *πολυρυφος*, *επταπλευρη*, &c.

round, smooth below the spike, and somewhat incurvated ; the calyx is of four leaves, somewhat erect, oval, obtuse, smooth, and persistent ; the flowers are small, produced on a long cylindrical imbricated spike, which occupies more than half the stem ; each flower consists of a roundish tube, narrow at the mouth, and the four segments are heart shaped, pale, withered, and bent downwards ; the bractea is oval, fleshy, and larger than the calyx ; the stamens are whitish, longer than the corolla, and the antheræ are purple : the germen is oval, the style short and filiform, and the stigma simple ; the capsule divides horizontally in the middle ; and, according to Mr. Curtis, contains about twenty unequal brown seeds. It grows commonly in pastures and way-sides, and flowers in June.

The name *Plantago*, is omitted in the London *Pharmacopœia*, but it is still retained in the *Materia Medica* of the Edinburgh college, in which the leaves are mentioned as the pharmaceutical part of the plant : these have a weak herbaceous smell, and an austere bitterish subf saline taste ; and their qualities are said to be refrigerant, attenuating, substyptic, and diuretic.

Plantago was formerly reckoned amongst the most efficacious of vulnerary herbs ; and by the peasants the leaves are now commonly applied to fresh wounds, and cutaneous sores. Inwardly, they have been used in phthisical^a complaints,^b spitting of blood, and in various fluxes, both^c alvine and hæmorrhagic. The seeds, however, seem to us better adapted to relieve pulmonary diseases than the leaves, as they are extremely mucilaginous. The roots have also been recommended for the cure of tertian intermittents ; and from the experience of Bergius, not undeservedly : “ *Plurimæ sunt narrationes de utilitate radicis plantaginis in Tertianis. Periculum ipse feci, dosi largiori, scil. a drachmis 3 ad 6, quovis die, sub apyrexia ; sed contra febres autumnales nihil valuit Plantago ; in vernalibus autem febribus subinde opem tulit.^d* ” An ounce or two of the expressed juice, or

^a Celsus, lib. 3. c. 22. Schulz, *Mat. Med.* p. 412. Pliny, lib. 26. c. 2. Petzoldt. *Eph. Nat. Cur. cent.* 7. Obs. 10. p. 25. ^b Boyle de util. Phil. *Nat.* p. 2. p. 150.

^c Rosenst. *Baskd.* p. 81. ^d *Mat. Med.* p. 70.

“ *Plantane has been alledged to be a cure for the bite of the rattle-snake : but for this there is probably but little foundation, although it is one of the principal ingredients in the remedy of the Negro Cæsar, for the discovery of which he received a considerable reward from the Assembly of South Carolina.* ” Duncan’s *New Edinb. Dispens.*



Arctium *Lappa.*

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the like quantity of a strong infusion of Plantane, may be given for a dose; in agues the dose should be double this quantity, and taken at the commencement of the fit.

ARCTIUM LAPPA.

BURDOCK.

SYNONYMA. BARDANA. *Pharm. Lond.* & *Edin.* LAPPA.
Hal. Stirp. Helv. n. 161. LAPPA SEU PERSONATA. *Raii Hist.*
 p. 332. LAPPA MAJOR, ARCTIUM DIOSCORIDIS. *Baub. Pin.*
 198. PERSONATA. *Camerar Epit.* 887. BARDANA SIVE
 LAPPA MAJOR. *Dodon.* 38. *J. Baub.* vol. 3. 570. BARDANA
 MAJOR. *Gerard,* 809. BARDANA VULGARIS MAJOR, *Park.*
 1222. ARCTIUM LAPPA. *Curt. Flor. Lond.* *Relhan Cant.* 302.
Withering. *B. A.* 163. Αγκετον, Αγκετον Græcor. VARIETATES
 sic se habent, *Hort. Kew.* vol. 3. p. 136.
 α Lappa major capitulo glabro maximo. *Raii Syn.* 196.

SMOOTH-HEADED COMMON BURDOCK.

β Lappa major montana, capitulis tomentosis. *Baub. Pin.* 198.

WOOLY-HEADED BURDOCK.

Class Syngenesia. *Ord.* Polygamia *Æqualis.* *L. Gen. Pl.* 923.

Eff. Gen. Ch. *Cal.* globosus: squamis apice hamis inflexis.

Sp. Ch. A. foliis cordatis inermibus petiolatis.

THE root is biennial, subcylindrical, long, simple, externally of a dark brown colour, internally white, and sends off many slender fibres: the stalk is erect, roundish, grooved, villous, purplish, above an inch in diameter, three feet high, and alternately branched: the leaves are alternate, patent, heart-shaped, veiny, above of a dark green colour, underneath whitish; the lower leaves are very large, and stand upon long footstalks, which are grooved like the stem: the calyx

calyx is common to all the florets, imbricated, globular, the exterior scales are entangled in fine wooly threads, firm, elastic, and their extremities are polished and hooked; the flowers are numerous, disposed in heads, and stand alternately upon footstalks on the branches; the corolla is compound, the florets purple, tubular, each having the limb divided into five pointed segments; the stamina are five, white, and filiform; the antheræ unite into a tube, are of a bluish colour, and project beyond the corolla; the germen is somewhat triangular, the styles white, and longer than the stamina, and the stigma bifid: the seeds are oblong, brown, and have irregular rough surfaces.

This plant is common in waste grounds and road sides; it flowers in July and August, and is well known by the burs, or scaly heads, which stick to the clothes, a circumstance from whence the word Lappa is supposed to be derived.‡ The Pharmacopœias direct the root for medical use: it has no smell, but tastes sweetish, and mixed as it were with a slight bitterishness and roughness. Its virtue, according to Bergius, is mundificans, diuretica, diaphoretica;^a and many instances are upon record in which it has been successfully employed in a great variety of chronic diseases, as scurvy, rheumatism, gout, lues venerea, and pulmonic complaints. We have never had an opportunity of observing the effects of this root, except as a diuretic, and in this way we have known it succeed in two dropsical cases, where other powerful medicines had been ineffectually used: and as it neither excites nausea nor increases irritation, it may occasionally deserve a trial where more active remedies are improper. The seeds also possess a diuretic quality, and have been given with advantage in the dose of a dram in calculous and nephritic complaints, and in the form of emulsion as a pectoral. The root is generally used in decoction, which may be made by boiling two ounces of the fresh root in three pints of water to two, which, when intended as a diuretic, should be taken in the course of two days, or if possible in twenty-four hours.

‡ *Lappa dici potest vel απο τε λαβειν prehendere vel λαπτειν lambere.* Ray, l. c.

^a Mat Med. 653. ^b Henricus III. Galliarum Rex, a Petro Penâ decocto radicum Lappæ ab hac luce sanatus fuit. Vide Reverius, Obs. 41.

The young stems of this plant, stripped of their rind, are boiled and eat like asparagus. When raw, they are good with oil and vinegar. Withering, 864. l. c.



Guaiacum officinale.

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GUAIACUM OFFICINALE. OFFICINAL GUAIACUM.

SYNONYMA. GUAIACUM. *Pharm. Lond. & Edin.* Miller's *Dic̄t.* Guaiacum, foliis fere impetiolatis, bijugatis, obovatis & leniter radiatis; pinnis & ramulis dichotomis. Browne's *Jamaica*, 225. Lignum Vitæ, or Guaiacum. Hughes's *Barbadoes*, 142. Guaiacum Americanum primum, fructu aceris, sive legitimum. Breyn. *Prodr.* i. 31. Pruno vel Euonymo affinis arbor, folio alato, buxeo, subrotundo, flore pentapetalō cæruleo racemoſo, fructu aceris cordato, cuius cortex luteus corrugatus, ſemen unicum majusculum nigricans nullo officulo teſtum operit. Sloane's *Jam.* vol. 2, 133. & Cat. P. *Jam.* 186. Guaiacum flore cæruleo, fructu subrotundo. Plum. *Nov. Gen.* 39. Guaiacum, magna matrice. Baub. *Pin.* 448. Lignum sanctum, Lignum Indicum, et Palus sanctus, *Quorundam*.

Class Decandria. *Order* Monogynia. *L. Gen. Plant.* 518.

Ef̄. Gen. Ch. *Cal.* 5-fidus inæqualis. *Petala* 5, calyci inserta. *Caps.* angulata 3 s 5-locularis.

Sp. Ch. *G.* foliolis bijugis obtusis.

THE Guaiacum tree grows to the height of forty feet, and to the circumference of four or five, sending forth several large dividing and subdividing knotted branches: the bark of the trunk is of a dark grey colour, variegated with greenish or purplish specks, but of the branches it is uniformly ash-coloured, striated, and marked with fissures; "the roots are very thick in proportion to the size of the tree, and run a great way into the ground, in a perpendicular direction;" the leaves are pinnated, consisting of two, three, and sometimes four pair of pinnæ, with very short footstalks, smooth, shining, veined,

of an inversely oval shape, and dark green colour : the flowers grow in clusters, or umbels, upon long peduncles, which spring from the divisions of the smaller branches : the calyx is of five leaves ; these are concave, oblong, obtuse, patent, unequal, and deciduous ; the petals are five, elliptical, concave, spreading, and of a rich blue colour ; the stamens are erect, villous, taper from the base, and are crowned with yellowish hooked antheræ ; the germen is oval, angular, and in its capsular state assumes the figure we have separately described ; the style is short and tapering ; the stigma is simple, and pointed ; the seeds are solitary, hard, and of an oblong shape.

Linnæus makes three species of the *Guaiacum*, viz. the *officinale*, *sancutum*, and *afrum* ; the specific difference between the two former he fixes wholly on the number of the pinnæ of the leaves, defining the first foliolis bijugis, and the second foliolis multijugis ; but the leaves, according to the plant we have figured, commonly consist of three, and sometimes four pair of pinnæ, ^a so that this specific description is by no means distinctly characteristic. In a medical sense, the *sancutum* has been generally considered synonymously with the *officinale*, and from the investigation we have given this subject, we believe it founded in botanical truth.^b

This tree is a native of the West India islands, and the warmer parts of America, and appears from the MS. of Sir Hans Sloane, in the British Museum, to have been first cultivated in this country by the Duchess of Beaufort in 1699.^c The wood, gum, bark, fruit, and even the flowers of this tree, have been found to possess medicinal qualities.^d The wood is brought here principally from Jamaica in large pieces of four or five cwt. each, and, from its hardness and beauty, is in great demand for various articles of turnery ware.—

^a There can be no doubt of our plant being the true *officinale*, we had it with several others from Mr. Aiton, whose extensive botanical knowledge is above our praise, and only to be equalled by that liberality of mind with which he communicates it. The testimony of Sir Hans Sloane is in opposition to Linnæus, for he observes that the leaves have sometimes four pair of pinnæ.

^b Monardus divides the wood into three sorts, and C. Bauhin adopts two of these by the distinctions of *Guaiacum magna matrice*, and the *Guaiacum propemodium sine matrice* : these circumstances, however, depend upon the age, size, &c. of the tree. The icons of these species, given by Blackwell and Regnault, cannot, we presume, be considered as decisive.

^c Vide Aiton's Hort. Kew. ^d Long's History of Jamaica, vol. 3. p. 725.

It is extremely compact, and so heavy as to sink in water: the outer part is of a pale yellowish colour, the heart of a dark blackish brown, with a greater or less admixture of green. It scarcely discovers any smell, unless heated, or while rasping, in which circumstances it yields a light aromatic one: chewed, it impresses a slight acrimony, biting the palate and fauces. Its pungency resides in a resinous matter, which is totally extracted by digestion in rectified spirit, and partially by boiling water. The quantity of solid extract, obtained by rectified spirit, amounts to about one-fourth of the weight of the wood; with water, scarcely one-sixth is obtained. The *gum*, or rather gummy resin, is obtained by wounding the bark in different parts of the body of the tree, or by what has been called jagging. It exudes copiously from the wounds, though gradually; and when a quantity is found accumulated upon the several wounded trees, hardened by exposure to the sun, it is gathered and packed in small kegs for exportation. This resin is of a friable texture, of a deep greenish colour, and sometimes of a reddish hue; it has a pungent acrid taste, but little or no smell, unless heated. It contains more resin than the watery extract made from the wood; and more gummy matter than the spirituous extract.—The Guaiacum tree also yields a spontaneous exudation from the bark, which is called the native gum, and is brought to us in small irregular pieces, || of a bright semipellucid appearance, and differs from the former in being much purer.^s The *Bark* contains less resinous matter than the wood, and is consequently a less powerful medicine, though in a recent state it is strongly cathartic. The *Fruit*, (says a late author) “is purgative; and, for medicinal use, far excels the bark. A decoction of it has been known to cure the venereal disease, and even the yaws in its advanced stage,

^e Lewis's M. M. 330. ^f Des Marchais, *Voyage en Guinée & Cayenne*, tom. 3. p. 246. “The Gum, or rather the resin of this plant, transudes frequently of its own accord, and may be seen concreted on many parts of it at all seasons of the year; but it is generally found in greater abundance where the bark has been cut or wounded.” Browne's Jam. 226.

|| It is sometimes sophisticated by the negroes with the gum of the Manchineal tree, (a species of the Hippomane) but this is easily detected by dissolving a little in spirit of wine or rum. The true gum imparts a whitish or milky tinge; but the Manchineal gives a greenish cast. Long, l. c. 724. Möuch advises a few drops of Spirit. nitri dulc. to be added to the spirituous solution, and then to be diluted with water, by which the gum is precipitated in a blue powder; but the adulteration will appear floating in white striæ, &c. Vide Crell's Chem. Journ. P. 2. p. 78. ^g Long, l. c.

without the use of mercury." The *Flowers*, or blossoms, are laxative, and in Jamaica are commonly given to children in the form of syrup, which in appearance much resembles that of violets. It is only the wood and resin of Guaiacum which are now in general medical use in Europe; and as the efficacy of the former is supposed to be derived merely from the quantity of resinous matter which it contains, they may be considered indiscriminately as the same medicine. Guaiacum was first introduced in the *Materia Medica* soon after the discovery of America,^h and previous to the proper use of mercury in the lues venerea, it was the principal remedy employed for the cure of that disease, and its great success brought it into such repute, that it is said to have been sold for seven gold crowns a pound;ⁱ but notwithstanding the very numerous testimonies in its favour ‡, it often failed in curing the patient, and was at length entirely superseded by mercury; and though it be still occasionally employed in syphilis, yet it is rather with a view to correct other vitia in the habit, than for its effects as an antivenereal.*

The general virtues of Guaiacum are stated by Bergius to be mundificans, sudorifera, diuretica, subcalefaciens, stomachica, and its use to be in syphilis, arthritis,† morbi cutis, odontalgia;‡ and to these we may add chronic rheumatism, scrophula, and some scirrhous diseases.—To Dr. Cullen Guaiacum seems analogous to the nature of the balsams and turpentines, he therefore supposes it like

^h Initium celebritatis dedit felix curatio, quam in insula St. Dominici Hispanus quidam superioris ordinis, qui morbum ab India muliere contraxerat, jam doloribus diris detentus, suadente famulo suo Indo, ex hoc ligno in semet experiebatur. Ejus exemplo praeunte, plures alii Hispani eodem modo contaminati ad idem auxilium fausto successu confugerunt. Quod quum post redditum Hispali ab hisce evulgaretur, hinc per totam Hispaniam, & inde per totum reliquum orbem, quem lues occupaverat, fama remedii increbuit. Monardes Simpl. Med. p. 341. Vide Murray's Ap. Med. vol. 3. 409. And according to Delgado, Guaiacum was used in Spain so early as 1508. (del modo de adoperare el Legno santo. Venet. 1529).

ⁱ Vide Friend's Hist. vol. 2. p. 365. And Massa de Morb. gal. 71. says, Ligni libra una scutatis aureis undecim veniret. ‡ Vide Böhm Diff. variæ siphilidis therapiæ.

* Perhaps the opinions and facts adduced by Boerhaave, Astruc, Plenk, De Haen, Hutton, and lately by Mr. Hunter, may be considered in some measure as exceptions.—The last of these authors remarks, that the Guaiacum was first used in Europe as a remedy for the Syphilis in 1517; but from the authority we have cited above, it appears to have been employed nine years sooner.

† Though upon the authority of Mead, Pringle, and others, Guaiacum has been much employed in rheumatisms, yet it was of little estimation in the gout till Mr. Emerigon of Martinico, published his letters about thirteen years ago, (Specifique contre la goutte, &c.)

^k Mat. Med. 346.

these to be very diffusible in the system, and thereby to have a considerable power in stimulating the extreme vessels every where; and in this way he accounts for its power in chronic rheumatism, and from its passing off by the pores of the skin, he considers it a probable remedy in some cutaneous disorders.¹

This opinion corresponds with Murray's, who says, —— Et hisce partibus resinosis quidem Guaiacum per minimos corporis nostri canales efficaciter penetrat, impacta resolvit & discutit, balsamicam virtutem exercet et sudorem potenter pellit, item evacuationes per alvum vel lotium, vel aliquando salivæ profluvium, ciet.^m According to Lewis, where the excretory glands are obstructed, the vessels lax and flaccid, and the habit replete with serous humours, it has good effects: but in thin emaciated habits, and an acrimonious state of the fluids, it often does harm.ⁿ — We have frequently conjoined it with mercury and soap, and in some cases with bark or steel, and found it eminently useful as an alterative. In the pharmacopœias it is directed in the form of tincture and elixir; the latter is ordered by the Edinburgh college to be prepared in two ways, viz. with rectified spirit, and the vinous spirit of sal ammoniac.^o Of these compounds the dose may be from two scruples to two drams: the powder is generally given from 6 grains to 20, or even more, for a dose, either by itself, or in a fluid form, by means of mucilage or the yolk of egg. The Decoctum lignorum, (Pharm. Ed.) of which Guaiacum is the chief ingredient, is commonly taken in the quantity of a pint a day.

¹ Mat. Med. vol. 2. 197. ^m Murray's Ap. Med. vol. 3. 408. ⁿ I. c. 331.

* Dr. Cullen observes, that "several physicians have apprehended mischief from the use of the Guaiacum in a spirituous tincture, and I am certain that it sometimes happens. It is therefore that in imitation of the very respectable Berger of Copenhagen I avoid the spirituous tincture of Guaiacum, and employ almost only the diffusion of it in water. In preparing this, having first with an equal part of hard sugar reduced the Guaiacum to a fine powder, I apply some portion of the yolk of egg, or of a mucilage of gum arabic, and rubbing these together very carefully, I form an emulsion with water, or watery liquors, as may be thought proper. This preparation I give over night in such a quantity as may open the belly once next day, which will happen to different persons from doses containing 15 to 30 grains of the Guaiacum." M. M. 199. Berger's formula is the following: Rx G. guaiaci ℥ss G. arabici ʒij. Bene trita solv. in aquæ hyssopi vel alias distill ʒix. Add. sacchari ℥ss m. d. f. solutio, cuius duo cochlearia majora mane & vesperi capiantur, superbibito libra una decocti hordei vel avenæ. Vet. Acad. Handl. vol. 1. p. 74. Theden recommends the Guaiacum made into pills with soap of almonds, which is still more convenient (*neue Bemerk. u Erfahr. a. d. Wundarzneyk. und Arz.* P. 2. 204.).

HÆMATOXYLUM CAMPECHIANUM. LOGWOOD.

SYNONYMA. Lignum Campechense. Pharm. Lond. & Edin.

Hæmatoxylum spinosum, foliis pinnatis, racemis terminalibus. Browne's Jam. 221. Lignum Campechianum, species quædam Brasil. Vide Sloane's Jam. vol. 2. p. 183. Crista pavonis Coronillæ folio secunda, sive tinctoria Indica, flore luteo racemofo minore, siliqua latissima glabra, lignum rubrum, Sappan dictum ferens. Breyn. Prodr. 2. 37. Erythroxylum, sive lignum rubrum Indicum spinosissimum, coluteæ foliis, floribus luteis, siliquis maximis. Herm. Par. Bat. 333. Hæmatoxylum. Long's Jam. vol. 3. p. 754. Miller's Dict. Jacquin, Ob. Bot. 1. p. 20.

Class Decandria. Order Monogynia. L. Gen. Plant. 525.

Eff. Gen. Ch. Cal. 5 partitus. Petala 5. Caps. lanceolata, 1-locularis, 2-valvis: valvis navicularibus.

THE Campechianum is the only species of the Hæmatoxylum hitherto discovered; it is a much smaller tree than the Guaiacum, and both the trunk and the branches are extremely crooked, and covered with dark-coloured rough bark; the smaller ramifications are numerous, close, prickly, or beset with strong sharp spines; the leaves are pinnated, generally composed of four or five pair of pinnæ, of an irregular oval shape, obliquely nerved, and obtusely sinuated at the top; the flowers grow in racemi, or in close regular terminal spikes, and appear in March; the calyx divides into five oblong obtuse segments, of a brownish purple colour; the petals are five, patent, obtusely lance-shaped, and of a reddish yellow colour; the stamina are somewhat hairy, tapering, of unequal length, shorter than the corolla, and the antheræ are small and oval; the style is nearly the length of the stamina, and the germen becomes a long double valved



Hermatovylum

Campechianum

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valved pod, which contains many oblong compressed, or somewhat kidney-shaped, seeds.

This tree is a native of South America, and grows to the highest perfection at Campeachy, in the Bay of Honduras, whence the seeds were brought to Jamaica in 1715, with a view of propagating it as an article of commercial export. And though it does not appear to have answered this purpose so fully as could have been wished, yet we are told that in some parts of the island, especially where the ground is swampy, this tree, in the course of three years, will rise to the height of ten feet, and by this quick and luxuriant growth, soon overrun and destroy the neighbouring plants.^a The Logwood tree was first cultivated in Britain by Mr. P. Miller in 1739,^b who says, “there are some of these plants now in England which are upwards of six feet high, and as thriving as those in their native soil ;”^c but this observation will not apply to the present time, for we have searched in vain for this plant through most of the principal garden stoves in the neighbourhood of London.

The wood of this tree is of a solid texture, and of a dark red colour; it is imported into Europe principally as a dying drug, cut into junks or logs of about three feet in length; of these pieces, the largest and thickest are preferred, as being of the deepest colour. This wood has a sweetish subastringent taste, and no remarkable smell; it gives a purplish red tincture both to watery and spirituous infusions, and tinges the stools, and sometimes the urine, of the same colour; but from the experiments of Du Hamel and others, it does not appear to colour the bones of animals, as observed of madder and some other plants of that class. It is used medicinally as an astringent and corroborant. In diarrhoeas it has been found peculiarly efficacious, and has the recommendation of some of the first medical authorities:^d also in the latter stages of dysentery, when the obstructing causes are removed,

^a In some parts of Jamaica “are such quantities of it growing wild, as to incommodate the land-holders extremely.” Long’s l. c. 754. He also observes, that “it makes an excellent and beautiful fence, which, if kept properly trimmed, grows so strong and thick, that nothing can break through.”

^b Hort. Kew. ^c Dictionary abridged, sixth edition. ^d Baker, Clark, Pringle, Duncan, Zimmerman, Baldinger, and others.

to obviate that extreme laxity of the intestines usually superinduced by the repeated dejections. Extractum ligni campechenis is ordered in the pharmacopœias, and may be given in the dose of one scruple or two, repeated according to the urgency of the symptoms.

HELLEBORUS NIGER.

BLACK HELLEBORE, Or,
CHRISTMAS ROSE.

SYNONYMA. HELLEBORUS NIGER, SEU MELAMPODIUM.²

Pharm. Lond. & Edin. Helleborus Niger legitimus. *Clus. Hist.* 274. Helleborus Niger flore roseo. *Baub. Pin.* 186. Helleborus Niger flore albo ; interdum etiam valde rubente. *J. Baub.* 3. 635. Helleborus Niger verus. *Gerard's Herb.* 975. TRUE BLACK HELLEBORE, or Christmas Flower. *Raii. Hist. Plant.* 697. An nostra planta sit Ελλεβόρος μελας et Μελαμποδιον Græcor. et Helleborus, Elleborus, Veratrum, Latinorum, nihil certi pronunciari possit.

Class Polyandria. *Order* Polygynia. *L. Gen. Plant.* 702.

Eff. Gen. Ch. *Cal.* o. *Petala* 5 s. plura. *Nectaria bilabiata*, tubulata. *Caps.* polyspermæ, erectiusculæ.

Sp. Ch. H. Scapo subbiflore subnudo, foliis pedatis.

THE root is perennial, rough, knotted, and externally of a black colour, internally whitish, sending off many strong round long fibres ; the flower stalks are erect, round, tapering, and towards the bottom reddish ; the bracteal leaves supply the place of the calyx, and are oval, concave, and generally indented at the top ; the petals are five, large, roundish, spreading, at first of a white

^a A Melampo qui primus purgationem instituit : unde καθαρτης, id est purgator nominatus fuit, & hocce medicamento Proeti filias in furorem aetas persanavit. Geoff.

colour,



Helleborus niger.

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colour, succeeded by reddish tints, but finally putting on a greenish appearance; the nectaria are about eight in number, tubulated, somewhat compressed, bilabiated, and of a greenish yellow colour; the filaments are white, the antheræ yellow; the germina vary, commonly from four to eight, and the capsules, or pods, contain many oval shining blackish seeds; the leaves are compound, divided in a peculiar manner, or pedated, and stand upon long radical foot-stalks; the simple leaf is elliptical, smooth, thick, and serrated towards the top. This plant is a native of Austria and Italy, and was unknown to the gardens in this country till cultivated by Mr. John Gerard in 1596. If the weather be sufficiently mild, it flowers in January, and hence the name of Christmas Flower.

If any arguments were required to evince the necessity of botanical accuracy in discriminating medicinal plants, the *Helleborus Niger* would furnish us with many facts on which such arguments might be deduced. For a great number of instances is recorded of the effects of this plant, by which it since appears that other plants were mistaken for it, and actually employed; of these we may enumerate the *Helleborus viridis*, *Adonis vernalis*, *Trollius europæus*, *Actæa spicata*, *Astrantia major*, and *Aconitum Napellus*;^b and as the roots of these plants possess very different powers, we cannot be surprised that the medical history of this root is not only confused and contradictory, but calculated to produce very mischievous and even fatal consequences.

The taste of the fresh root is bitterish, and somewhat acrid, and according to Grew, “ being chewed, and for some time retained upon the tongue, after a few minutes it seemeth to be benumbed, and affected with a kind of paralytic stupor, or as when it has been burnt with eating or supping any thing too hot.”^c It also emits a nauseous acrid smell, but being long kept, both its sensible qualities and medicinal activity suffer very considerable diminution. Bergius has very properly attended to this circumstance, for in defining its virtues he considers it under three different degrees of dryness:^d “ *VIRTUS: rec. venenata, rubefaciens, vesicans; reccenter ficcatæ: emeticæ, purgans, emmenagoga, antiphthiriaca, sternutatoria; diu conservatæ:*

^b Probably art, as well as ignorance, had some share in these substitutions; for the particulars of which see Murray's Ap. Med. vol. 3. from p. 44. to p. 50.

^c On tastes, vide Anatomy of Plants, p. 283. ^d Mat. Med. p. 496.

vix purgans, alterans, diuretica." Although many writers consider this root to be a perfectly innocent and safe medicine, yet we find several proofs of its poisonous effects,^c from which Murray collects the following symptoms :— " Fateor, dispersas hinc inde extare observationes contrarias, querelas moveri de vomitionibus effrænis inde contractis, hypercatharsi, torminibus, anxietate, siti, singultu, animi deliquiis, sudoribus frigidis, faucium strangulatione, convulsionibus, sternutatione, torpore quodam artuum et insueta rigiditate, inflammatione ventriculi et intestinorum, quin morte pedissequa præviis variis dictis malis."

It seems to have been principally from its purgative quality that the ancients esteemed this root such a powerful remedy in maniacal disorders, with a view to evacuate the *atra bilis*, from which these mental diseases were supposed to be produced ; but though evacuations be often found necessary in various cases of alienations of mind, yet as they can be procured with more certainty and safety by other medicines, this catholicon of antiquity is now almost entirely abandoned.^f At present it is looked upon chiefly as an alterative, and in this light is frequently employed in small doses for attenuating viscid humours, promoting the uterine and urinary discharges, and opening inveterate obstructions of the remoter glands :^g it often proves a very powerful emmenagogue in plethoric habits, where steel is ineffectual, or improper.^h It is also recom-

^c Vide, Doering De Medicina et Medicis, p. 242. A&t. Helv. vol. 5. p. 326. Buchner Diff. de salut. et noxio Ellebori Nigri usu. p. 22. Hildanus Obs. Med. chir. cent. 4. obs. 12. Scopoli Fl. carn. ed. 1. p. 557. Morgagni de sed. & caus. morb. Epist. 59. art. 15. et A&t. Helv. l. c. Hartman Vet. Acad. Handl. a 1762. p. 276. Schulz Mat. Med. p. 152.

^f Whether our Hellebore be the same species as that said to grow in the island of Anticyra, and about Mount Olympus, so frequently alluded to by the latin poets, is no easy matter to determine. From the accounts of Tournefort and Bellonius, who botanized these places, a species of this plant was found in great plenty, which the former supposes to be the Hellebore of Hippocrates ; it differs from the species here figured, by having a large branched stem, and also by its effects, for he found that a scruple of the extract brought on violent spasms and convulsions. Many plants however are known to vary as much by a removal from their native soil and climate.

^g Duncan's Ed. new. Dispensatory. Lewis's Mat. Med.

^h Mead, (mon. et præc. med. p. 138) speaks of it as the most potent of all emmenagogues ; but Home (clin. exper. & hist. p. 386) and Pasta (Dissertaz. mediche sopra i mestru i delle Donne, p. 192) found it often unsuccessful.



Helleborus foetidus

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mended in dropsies,¹ and some cutaneous diseases.² The watery extract of this root, made after the manner directed in the pharmacopœias, is one of the best and safest preparations of it,¹ when designed for a cathartic, as it contains both the purgative and diuretic parts of the Hellebore; it may be given in a dose from ten grains to a scruple, or more. A tincture of this drug is also ordered in the pharmacopœias, which is preferred for the purposes of an alterative and deobstruent; of which a tea-spoonful twice a day may be considered a common dose.

¹ By Avicenna, Gesner, Klein, Milman, and Bacher whose famous *tonic pills* are thus prepared: Rx Ext. Helleb. Nig. Myrrhæ Solutæ aa ʒj pulv. Card. bened. ʒijj M. F. s. a. Massa aëre sicco exsiccanda, donec formandis pilulis apta sit, singul. ad gran. semiss. ² In the lepra Græcorum. Vide Aretæus Oper. ed. Boerh. p. 136. Schmidel Diss. de lepra in Haller's collect. Disp. pract. T. 6. p. 83. And Hildanus mentions the case of a girl who was cured of an obstinate scabies of the face by this extract. l. c.

¹ The irritating power of its active matter being considerably abated by the boiling. Lewis's M. M.

HELLEBORUS FOETIDUS. FETID HELLEBORE, Or, BEAR's-FOOT.

SYNONYMA. HELLEBORASTER. *Pharm. Lond.* Helleborus Niger Fœtidus. *Bauh. Pin.* 185. Helleboraster maximus flore & semine prægnans. *Lobel.* p. 679. Helleboraster maximus. *Gerard. Herb.* p. 977. Helleborus maximus sive Consiligo. *Park. t.* 212. Helleborus caule ramoso, multifloro, foliis multipartitis, ferratis, stipulis ovato-lanceolatis, coloratis. *Haller's Stirp. Helv.* p. 1193. Elleborus niger sylvestris adulterinus etiam hyeme virens. *J. Bauh. 3. p. 880.* Veratrum nigrum 3. *Dodon. Pempt.* 382. **G R E A T BLACK HELLEBORE, or Bear's-Foot.** *Setterwort, Raii Synopsis,* p. 271. *Withering's Bot. Arran.* 582. *Relhan's Flor. Cant.* p. 218.

Class. Polyandria. Order Polygynia. L. Gen. Plant. 702.

Eff. Gen. Ch. Cal. o. Petala 5 f. plura. Nectararia bilabiata, tubulata. Caps. polyspermæ, erectiusculæ.

Sp. Ch. H. caule multifloro folioso, foliis pedatis.

THE root is small, but beset with a prodigious number of slender dark

dark coloured fibres ;^a the stem rises to the height of a foot and a half, or more, towards the bottom it is round, strong, firm, naked, and marked with alternate cicatrices, the vestiges of the former leaves ; at the top it divides and subdivides into branches, producing many flowers, and is garnished with scaly leaves, or bractæ ; the leaves are numerous, and stand upon long footstalks, surrounding the middle of the stem ; they are divided like the *Helleborus niger* into simple leaves, which are commonly eight or nine, long, narrow, lanceolated, serrated, and of a dark green colour ; the scaly leaves, placed at the ramifications of the flower stem, are smooth, trifid, alternate, and often purplish, but those near the flowers are oval and pointed ; the flowers are numerous, terminal, pendent, of a roundish shape, and stand upon peduncles, forming a sort of umbel ; the petals are five, oval, concave, persistent, of a pale green colour, and their margins are usually tinged with purple ; the stamens are the length of the petals ; the antheræ are white ; the germina three, hairy, and shaped similarly to those of the *Helleborus niger*. This plant grows wild in many parts of England, and flowers about February.

The *Helleborus niger*, though constantly used in medicine since the time of Hippocrates, was the only species of Hellebore ^b known in the *Materia Medica* of our *pharmacopœias*, till the late introduction of this plant by the London College, probably upon the authority of Dr. Bislet, who recommends the leaves as possessing extraordinary anthelmintic powers. The smell of the recent plant is extremely fetid, and the taste is bitter, and remarkably acrid, insomuch, that when chewed, it excoriates the mouth and fauces ; it commonly operates as a cathartic, sometimes as an emetic, and in large doses proves highly deleterious.^c The leaves, the only part noticed by the College, have been long domestically employed in this country for their vermifuge effects, and are thus spoken of by Gerard : — “ The leaves of bastard Hellebor, dried in an oven, after the bread is drawne out, and the pouder thereof taken in a figge or raisin, or strawed

^a Gerard's description we find very just. “ The root consisteth of many small black strings, involved or wrapped one within another very intricately.” Johnson's Gerard, 977.—^b It must be observed, that the *Helleborus Albus* of the shops, is a *Veratrum*.

^c Vide Threlkeld's Irish Herbal ; and in the Oxford Magazine for March 1769, p. 99. fatal cases are related by John Cook of Oxford.

upon a piece of bread spread with honey, and eaten, killeth worms in children exceedingly."^a—Biffet says, "The great bastard black Hellebore, or Bear's-Foot, is by far the most powerful vermifuge for long round worms of any I have yet experienced. The anthelmintic virtue of this plant is well known to the vulgar in the Dutchy of Cleveland, Yorkshire, who generally give it to their children when they suspect them to have worms. The decoction of about a dram of the green leaves, or about fifteen grains of the dried leaves in powder, is the usual dose administered to children betwixt four and seven years of age; a full or sufficient dose generally proves more or less emetic, and often loosens the belly a little. It is usually repeated on two, and sometimes three successive mornings. The second dose has commonly a greater effect than the first, and never fails to expel round worms by stool, if there be any lodged in the alimentary tube."

"The juice of the green leaves of the Bear's-Foot, made into a syrup with coarse sugar, is almost the only vermifuge I have used against round worms for three years past. Before pressing out the juice, I moisten the bruised leaves, which are a little succulent, with some vinegar, which is a corrector of this medicine, and prevents it from inducing great sickness, or much vomiting. Of this syrup I give one tea-spoonful at bed-time, and one or two in the morning, on two or three successive days, to children betwixt two and six years of age; increasing or diminishing the dose a little, according to the strength of the patient."^b When this does not open the body, an equal quantity of tincture of rhubarb is directed to be added.

^a Gerard, l. c. ^b An Essay on the Medical Constitution of Great Britain, p. 235. and p. 339. Dr. B. speaks of this plant as useful also in some asthmatic and hypochondriacal disorders.

We have tried the anthelmintic effects of this plant upon a girl of twenty years of age, (a patient in the Middlesex Dispensary) with considerable advantage.

OXALIS ACETOSELLA.

WOOD-SORREL.

SYNONYMA. LUJULA. *Pharm. Lond.* OXALIS ACETOSELLA, scapis unifloris, fol. ternatis: foliolis obcordatis pilosis. Thunb. *Diff. de Oxal.* n. 5. *Curtis Flor. Lond.* *Withering's Bot. Arrang.* p. 470. *Reichenb's Flor. Cant.* p. 176. Oxys scapo unifloro, foliis ternatis, radice squamoso-articulata. *Hal. Stirp. Helv.* n. 928. Oxys sive Trifolium acidum, flore albo & purpurascente. *J. Baub.* II. 387. Trifolium acetosum vulgare. *Baub. Pin.* 330. *Parkinson & Theat.* 746. Oxys Alba. *Gerard. Herb.* 1201. *Raii Synop.* p. 281. WOOD-SORREL. *Hist. Plant.* 1098. ACETOSELLA, et ALLELUJA, Quorundam.

Class Decandria. *Ord.* Pentagynia. *L. Gen. Plant.* 582.

Eff. Gen. Ch. *Cal.* 5-phyllus. *Petala* unguibus connexa. *Caps.* angulis dehiscens, 5-gona.

Sp. Ch. O. scapo unifloro, foliis ternatis obcordatis, radice dentata. *L. Syst. ed.* 13.

THIS delicate little plant is excellently described by Mr. Curtis, (*Flor. Lon.*) we shall therefore adopt his description, as far as it coincides with our plan. The root is perennial, horizontal, scaly, and of a bright red colour; the leaves grow three together, inversely heart-shaped, of a yellowish green colour, frequently purple underneath, and beset with a few hairs; the leaf stalks are about three inches long, nearly upright, tender, proceeding from little bulbs, which form a kind of sheath, at the bottom these stalks are red and round, but towards the top grooved on one side: the flowers are white or flesh-coloured, and elegantly streaked with red veins. The flower-stalk is somewhat longer than the leaf-stalk, and



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and furnished near the top with two oval pointed bracteæ, which partly surround it; the calyx is divided into five segments; these are short, permanent, bluntnish, membranous at the edges, and often spotted with purple; the petals are five, affixed to the receptacle by the claws, which bend a little inward just above where the claws adhere together, they are blunt, slightly crenated, and tinged at the bottom with yellow; the stamina are ten, upright, white, the five exterior the shortest; the antheræ are yellow and bilocular; the germen is quadrangular and green; the styles are five, very slender, a little longer than the stamina, and the stigma is blunt; the capsule is ovalish, pentagonal, spotted, divided into five cavities, each containing three seeds, which are heart-shaped, longitudinally grooved, convex on both sides, of a bright reddish brown colour, and inclosed within a shining white elastic arillus, by the bursting of which the seeds are thrown out[†]. This plant is a native of England, it flowers about April and May, and is commonly found in woods, or in shaded situations.^a

The Acetosella is totally inodorous, but has a grateful acid taste,^b which is more agreeable than the common sorrel, (*Rumex Acetosa*) and approaches nearly to that of the juice of lemons, or the acid of tartar, with which it also corresponds in a great measure in its medical effects, being esteemed refrigerant, antiscorbutic, and diuretic. It is recommended by Bergius in inflammatory, bilious, and putrid fevers, and from the cases adduced by Francus,^c he concludes, “*Acetosellam appetitum restaurare, vomitum consopire, alvum stringere, fitim sedare, oris amaritatem tollere, cordis vires reparare, anginamque abigere.*”^d The principal use however of the Acetosella is to allay inordinate heat, and to quench thirst; for this purpose, a pleasant whey may be formed by boiling the plant in milk, which under certain circumstances may be preferable to the conserve directed by the London

[†] As a distinguishing part of the generic character, Ray says, “*Quod per maturitatem leviter tactu dissipans cum impetu semina ejaculantur,* (hist. 1098).

^a Mr. Curtis observes, that this plant continues to produce seeds during the greatest part of the summer, without any appearance of expanded blossoms.

^b This makes it useful in salads, in some measure supplying the place of vinegar.

^c *De vera herba Antiquorum Acetosella, &c.* ^d *Mat. Med.* p. 379.

College, though an extremely grateful and useful medicine. Many have employed the root of Lujula, probably on account of its beautiful red colour rather than for its superior efficacy. An essential salt is prepared from this plant, known by the name of Essential Salt of Lemons, and commonly used for taking ink-stains out of linen.

* This salt is made from the expressed juice. Vide Boerh. Chem. vol. 2. proc 7. & Savary, Diff. de Sale Essent. Acetosellæ. p. 9. Thunberg found that the *Oxalis cernua* of the Cape of Good Hope, yields the salt in greater quantity than the *Acetosella*. — This salt, when genuine, which is seldom to be procured so, || is composed of the vegetable alkali and a peculiar acid, which seems more allied to the acid of sugar than that of tartar. Vide Bergman Act. Up. Nov. vol. 2. p. 215. where the manner of separating this acid is also given, and related by Murray. Ap. Med. vol. 3. p. 497.

|| Vide Scheele in Görwells nya tidningar, 1775. n. 30. p. 237. & Savary, l. c. What is sold under the name of *Essential Salt of Lemons* in this country, appears sometimes to consist of C. Tart. with the addition of a small quantity of vitriolic acid. MS. Lectures on Chemistry by Dr. Hamilton.



Convolvulus Jalapa.

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CONVOLVULUS JALAPA. JALAP BIND-WEED.

SYNONYMA. Jalapium. *Pharm. Lond.* Jalappa. *Pharm. Edin.* Convolvulus Jalapa, fol. difformibus cordatis angulatis oblongis lanceolatis, caule volubili, pedunculis unifloris. *Lin. Syst. Veg. & Mant.* 43. Convolvulus foliis variis, pedunculis unifloris, radice tuberosa cathartica. *Mill. Diet.* Convolvulus Americanus Jalapium dictus. *Raii Hist.* vol. 1. 724. Mechoacanna nigricans, five Jalapium. *Park.* 180. Bryonia Mechoacanna nigricans. *Baub. Pin.* 298.

Class Pentandria. *Ord.* Monogynia. *L. Gen. Plant.* 215.

Eff. Gen. Ch. *Cor.* campanulata, plicata. *Stigmata* 2. *Caps.* 2-locularis: loculis dispermis.

Sp. Ch. C. caule volubili, foliis ovatis subcordatis obtusis obsolete repandis subtus villosis, pedunculis unifloris. *Hort. Kew.* vol. 1. 211.

THE root is perennial, large, ponderous, abounding with a milky juice, of an irregular oval form, and blackish colour; the stalks are numerous, shrubby, slender, twisted, striated, rising above ten feet high, and twining for support round the neighbouring plants; the leaves are various, generally more or less heart-shaped, but often angular, or oblong and pointed; they are smooth, of a bright green colour, and stand alternately upon long footstalks; the flowers are produced from short branches, sending off two peduncles, each of which supports a single flower; this is large, bell-shaped, entire, plicated, externally of a reddish colour, but of a dark purple within;* the calyx consists of five oval leaves, these are concave, somewhat

* The colour will no doubt vary. This plant, at Kew, produced yellowish flowers; but the plants obtained by Houston from the Spanish West Indies answer to the description we have given.

indented at their points, and of a pale green colour; the filaments are five, slender, short, and the antheræ large, and yellow; the style is shorter than the stamens; the stigma is round, and the germen oval. It is a native of South America, and flowers in August and September.^a The plant we have figured was introduced into the Royal garden at Kew in 1778, by Mons. Thouin, and under the direction of Mr. Aiton it acquired great vigour and luxuriance, extending its stalks fifteen feet in length; and, by means of slips obtained from it, two healthy young plants have since been produced: this circumstance is the more fortunate, as the parent plant lately died. Botanists have differed much respecting the officinal Jalap plant; Linnaeus following Clusius, Plumier, Tournefort, and others, first referred it to the Mirabilis, but in the second edition of his *Materia Medica* he adopts the opinions of Ray and Miller, in considering it a Convolvulus; and indeed after the account of this plant given by Dr. Houston,^b we are surprised that any doubt should still remain upon this subject.^c

It is said that the root of Jalap was first brought to Europe about the year 1610, and took its name from Xalapa, a province or town in New Spain. In the shops we find this root both cut into slices, and whole, of an oval shape, solid, ponderous, blackish on the outside, but grey within, and marked with several dark veins, by the number of which, and by its hardness, heaviness, and dark colour, the goodness of the root is to be estimated. It has scarcely any smell, and very little taste; but to the tongue and to the throat manifests a slight degree of pungency. The medicinal activity of Jalap resides principally, if not wholly, in the resin, which though given in small doses, occasions violent tormina. The gummy part

^a Hort. Kew. ^b See Linnaeus's *Observ.* in *Mat. Med.* 1772. p. 7.

* The London College have not referred to the Linnæan name of this plant.—Bergius found that neither the dried root of the *Mirabilis Jalapa*, nor of the *M. longiflora*, given in the dose of half a dram, produced any cathartic effects, but he says that of the *M. dichotoma* satis bene purgat; and as its root also bears some resemblance to the true exotic jalap, he hence infers that it is the same. However, with great deference to the learned professor, we think these reasons insufficient to warrant his conclusion, more especially as they are repugnant to established facts. We may also observe, that all the three species of the *Mirabilis* are in some degree purgative; but even when fostered in the warm climate of Jamaica, so congenial to their native soil, their roots, both in appearance and medicinal power, essentially differ from those of jalap.

bears an inconsiderable proportion to the resinous, and is found to have little or no cathartic power, but as a diuretic it is extremely active.—That Jalap is an efficacious and safe purgative daily experience must evince, but according as the root contains more or less resin, its effects must of course vary. Hoffman thought it particularly improper and unsafe to administer this medicine to children; but Dr. Cullen observes, that if Jalap “ be well triturated before exhibition with a hard powder, and the crystals of tartar are the fittest for the purpose, it will operate in lesser doses than when taken by itself, and at the same time very moderately and without griping. Except when given in very large doses, I have not found it to be heating to the system; and if it be triturated with a hard sugar, it becomes, in moderate doses, a safe medicine for children, which in this form they will readily receive, as the jalap itself has very little taste.”†—Jalap, in large doses, or when joined with calomel, is recommended as an anthelmintic and a hydragogue, and from its general efficacy in dropfies was called Panacea Hydropicorum.^a For the different constitutions and conditions of body in which it is more especially indicated, or its use forbidden, we may cite the opinion of Geoffroy: “ Observandum tamen Jalapam non convenire in febribus acutis, neque calidis & fccis constitutionibus. In his enim, sicut cætera purgantia acria & irritantia, calorem intensum & sæpe inflammatorium in visceribus accedit, parcioremque imo sæpe nullam evacuationem promovet. Sed iis convenit, qui frigidæ sunt temperie & sero scatentes, speciatim in hydrope, anasarca, & cachexia.” M. M. In the Pharmacopœias, we have Jalap in the form of tincture and of extract; and the Edinburgh College direct it also in powder, with twice its weight of the crystals of tartar. The dose of the simple powder is commonly from one scruple to two; of the compound powder it may be double this quantity, which is nearly equal to 10 or 15 grains of the extract, or about two drams of the tincture.

† Cullen's Mat. Med. vol. 2. p. 540.

^a Marcgrave M. M.

CONIUM MACULATUM. COMMON HEMLOCK.

SYNONYMA. Cicuta. *Pharm. Lond. & Edin. Hal. Stirp. Helv.* 766. Cicuta major. *Baub. Pin.* 160. Cicuta vulgaris major, *Park.* 933. Cicutaria vulgaris. *Clus. Hist.* 2. 200. Cicuta. *Gerard,* 1061. *Raii Hist.* vol. 1. 451. *Synop.* p. 215. *Stoerck. Suppl.* Conium Maculatum. *Scop. Flor. Carn.* p. 207. *Bergius Mat. Med.* 192. *Curtis Flor. Lond. Withering Bot. Arrang.* 277. *Relhan Flor. Cant.* 112. Κωνείον *Græcor.*

Class Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 336.

Eff. Gen. Ch. *Involucella* dimidiata, subtriphylla. *Fruetus* subglobosus, 5-striatus, utrinque crenatus.

Sp. Ch. *C. seminibus striatis.*

THE root is biennial, tapering, sometimes forked, eight or ten inches long, and about the thickness of a finger: the stalk is five or six feet high, round, shining, beset with brown and purplish specks; towards the top branched and striated; near the bottom about three inches in circumference, and covered with a bluish exudation, appearing like a fine powder: the lower leaves are very large, tripinnated, of a shining green colour, standing upon long, striated, concave footstalks, which proceed from the joints of the stem; the upper and smaller leaves are bipinnated, and placed at the divisions of the branches: the flowers are produced in umbels, which are both universal and partial, and composed of several striated radii. The universal involucrum \ddagger consists of five or seven leaves, these are lanceolated, whitish at the margin, and bent downwards; the partial

\ddagger The calyx of umbelliferous plants is termed involucrum, and may be universal, partial, or proper, according as it is placed at the universal umbel, partial umbel, or flower.



Conium maculatum

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involucrum is composed of three or four leaves, which are placed on the outer side of the radial stalk ; the petals are five, oval, white, and curl inwards at their points ; the stamina are five, white, about the length of the corolla, and crowned with whitish antheræ ; the styles are two, filiform, inclining outwards, and terminated by round stigmata ; the fruit is oval, striated, consisting of two irregularly hemispherical striated brownish seeds. This plant flowers in July, and is commonly found near dunghills and waste grounds.^a It has a peculiar faint fetid smell, and a slight aromatic herbaceous, and somewhat nauseous taste.^b

The common resemblance of most of the umbelliferous plants leads us to suspect, that they were very imperfectly distinguished by the ancients ; for though the botanical description of the *Kωνεόιν*, given by Dioscorides, applies in great measure to this plant,^c yet it must be considered, that his description is without discrimination, and is, with a few exceptions, equally applicable to all the genera of plants composing the natural order of *Umbelliferæ* : so that the accounts given of *Cicuta* by ancient writers, should be admitted with great caution.^d Whether this species of hemlock was the poison usually administered at the Athenian executions, and which deprived Athens of those great characters, Socrates and Phocion, we are at a loss to determine ;^e but that it is a deleterious poison there cannot be a doubt,^f though some circumstances render it probable that it is less

^a “The Hemlock is obviously distinguished from our other umbelliferous plants by its *large and spotted stalk*, by the dark and *shining green colour* of its bottom leaves, and particularly by their *disagreeable smell* when bruised, and which, according to Stöerck, resembles that of mice.” *Curt. Flor. Lond.* The *Chærophyllum bulbosum* has a spotted stem, but its swelled joints, and rough seeds, distinguish it from the hemlock.

^b Bergius. M. M. 194. Stoerck says, that the milky juice of the root is so extremely acrid and deleterious that a small drop or two of it being applied to his tongue produced great pain and swelling of that organ, and for some time deprived him of the power of speech.—In answer to this see note (g).

^c Haller refers it to the *Cicuta virosa*. ^d The word *Cicuta*, with the ancients, seemed not indicative of any particular species of plant, but of poisonous vegetables in general. Vide Plinii Hist. Nat. L. 14. c. 5. L. 25. c. 13.

^e For further information on this subject, consult Steger Diss. de *Cicuta Atheniensium*. Ehrhart Diss. de *Cicuta*. Joannis Viventii de *Cicuta* comment.

^f Of the most decisive instances of its fatal effects, which have occurred in this country, is that related by the late Dr. Watson in the Phil. Transact. in which it is fully ascertained

less powerfully so than is generally imagined. The symptoms produced by Hemlock, when taken in immoderate doses, are related by various authors, the principal of which have been collected by Haller and others, and stated in the following words: "Intus sumpta facit anxietates, cardialgias, vomitus, appetitum prostratum diuturn-

tained by him, that two Dutch soldiers, at Waltham Abby, were killed in a very short time by eating this plant. Other proofs of this sort are given by Heins, (Pharm. rat. p. 370) which happened to some boys at Dresden. Saml. rur Geschichte von Ober. Sachs. III. p. 221. Scaliger, Subtil. Exerc. 152. Amatus Act. Cur. 98. Cent. V. See also the cases mentioned by Wolf in Comment. lit. Nor. anno 1740 and 1749.—Wepfer. Cicut. p. 71. 312. Brassavola Examen. omn. simp. We may also notice the following from Theophrastus, (L. IX. c. 17.) *Thrasyas Mantineensis remedium a se inventum fuisse gloriabatur, quod absque dolore vitam abrumperet, ex Cicuta & Papaveris succo mistum, &c. vide Hal. Stirp. Helv. p. 338.*—to which work we are obliged for many of the facts just recited. Although sheep and some other animals eat this plant with impunity, yet to many it is strongly poisonous. Three spoonfuls of the juice killed a cat in less than a quarter of an hour. Rozier, Tableau, tom. i. 1773. Upon opening those animals to which it proved fatal, inflammation of the stomach and intestines was discovered. Harder apiar. Obs. 24 & 25. Wepfer cicut. p. 334. And we may here add, what we noticed formerly under Belladonna, that vinegar has been found the most useful in obviating the effects of this poison; and that by macerating or boiling this plant in vinegar, it becomes totally inert. Lindestolpe de venenis.

Respecting the root of Hemlock, we have the following instances, shewing unequivocally that it does not possess any noxious power whatever. Ray relates, (Phil. Trans. XIX. vol. p. 634.) that the skilful herbalist, Mr. Petiver, ate half an ounce of the root of Hemlock, and that Mr. Henly, in the presence of Mr. Petiver, swallowed three or four ounces, without experiencing any remarkable effect; and these facts seem confirmed by the later experiments of Mr. Alchorne and Mr. Timothy Lane, neither of whom perceived any sensible effect on eating this root. Mr. Curtis says, Mr. Alchorne "assures me, that he has tried this in every season of the year, and in most parts of our island, without finding any material difference: and Mr. T. Lane informs me, that he also, with great caution, made some experiments of the like kind, and in a short time found he could eat a considerable part of a root, without any inconvenience; after this he had some large roots boiled, and found them as agreeable eating at dinner with meat as carrots, which they in taste somewhat resembled; and as far as his experience, joined with that of others, informed him, the roots might be cultivated in gardens, and either eaten raw like celery, or boiled as parsneps or carrots." (Flor. Lond.) And Murray observes, Non tamen tantopere esse Conium reformidandum, ut quidam existimant, patet inde, quod etiam infantibus tenellis impune exhibitum, nec foetum afficerit sub matris graviditate datum, nec gravidam matrem, nec detrimentum attulerit largior et per protractius tempus, ad drachmas sex extracti usque supraque intra nychthemerum, usus. Stöerck, vide Murray, Ap. Med. vol. 1. p. 216.—Quin & exstant exempla vetustiora, ingestam herbam vel succum majori adeo quantitate subinde tam homines quam bruta impune tulisse. Sic Plinius caulem viridem comedí, Sextus Empericus feminam producit, quæ drachmam unam succi absque noxa cepit. Murray, l. c.

nam,

nam, convulsiones, cæcitatem, sopores," (l. c.) "vertiginem, dementia, mortemque ipsam." Murray App. Med. vol. 1. p. 215.—Cicuta seems to have been, both by the Greek and Arabian physicians, very generally employed as an external remedy for tumours, ulcers, and cutaneous eruptions; it was also thought to have the peculiar power "frangere stimulum venereum;"^h and this circumstance is the more remarkable, as Stoerck, Bergius, and others, recommend its internal use for complaints of a contrary nature, and adduce proofs of its aphrodisiacal powers.ⁱ

Baron Stoerck was undoubtedly the first physician, who brought Hemlock into repute as a medicine of extraordinary efficacy, by his publication in 1760; and his claim to this distinction is the stronger, as his facts only have since been able to support its reputation to any very considerable extent; nay it never succeeded so well as when under his own direction, or confined to the neighbourhood in which he resided,^k and to the practice of those physicians with whom he lived in habits of intimacy and friendship.* To enumerate all the diseases in which he sets forth the powerful efficacy of Cicuta, in four successive books on the subject, would be to give a catalogue of most of the chronic diseases with which human nature is afflicted. And Bergius, though he experienced no advantage by employing it in true cancerous affections, still recommends its use in "Ulcera sordida & siphilitica, Scabies, Morbi cutis, Gonorrhœa, Leucorrhœa, Phthisis, Impotentia virilis, Rheumatismus chronicus, Scrophula;" and he considers its *Virtus* to be "narcotica, resolvens, suppurationem promovens, diuretica." To estimate with precision the medicinal utility of Hemlock is no very easy task. Had Dr. Stoerck's publi-

* Aretæus de Morb. Acut. L. 2. c. 11. Et incrementa mammarum & testium cohibere, *Anaxilaus* & *Dioscorides*.

ⁱ Impotentiam virilem sub usu Conii curatam observavi, in viro quodam plusquam quadrigenario, qui omnem erectionem penis perdiderat, postinde tamen plures liberos procreavit. Bergius Mat. Med. p. 195.—Dr. Cullen, however, never discovered its effects in this way.

^k The general inefficacy of Hemlock experienced in this country, induced physicians at first to suppose that this plant, in the environs of Vienna and Berlin, differed widely from ours, and this being stated to Dr. Stoerck, he sent a quantity of the extract, prepared by himself, to London, but this was found to be equally unsuccessful, and to differ in no respect from the English extract. * Collin, Locher, Quarin, Leber, &c.

cations upon this subject contained but few and less extraordinary proofs of its good effects in certain obstinate and painful diseases, the virtues of cicuta might have been held in greater estimation than they actually are:¹ while those authors, who have as generally condemned this medicine as uniformly useless or dangerous, seem to have done it equal injustice.^m Although we have not in this country any direct facts, like those mentioned by Stoerck, proving that inveterate scirrhuses, cancers, ulcers, and many other diseases hitherto deemed irremediable, were completely cured by the Cicuta; we have, however the testimonies of several eminent physicians, shewing that some complaints, which had resisted other powerful medicines, yielded to Hemlock;ⁿ and that even some disorders, which, if not really cancerous, were at least suspected to be of that tendency, were greatly benefited by this remedy. In chronic rheumatisms, some glandular swellings, and in various fixed and periodical pains, the cicuta is now very generally employed; and from daily experience, it appears in such cases to be a very efficacious remedy. It has also been found of singular use in the chincough.^o We cannot therefore but consider this plant an important acquisition to the *Materia Medica*. Externally the leaves of hemlock have been variously applied with advantage to ulcers, indurated tumours, and gangrenes.

Much has been said respecting the variable nature of this plant, the time of collecting it, the part which ought to be preferred, and the best manner of preparing it for medical use; but as these circumstances

¹ That it should be of some estimation in many of the diseases, in which it is recommended by Stoerck, appears from the numerous authorities cited by Murray, who concludes with these words: "Et sic quidem in multis pertinacissimis morbis liquandi spissa, obstructa reserandi et sanguinem depurandi, efficacia auxilio fuit." l. c.

^m Vide Andree's Observations on Stoerck's Pamphlet, anno 1761.. Lange Diff. dubia Cicutæ vexata. anno 1764. De Haen Epist. de cicuta, anno 1765. Bierken (*Tal om Kraftskador*) who, with Bergius, says, that in all cancers it does mischief.

ⁿ Among those we may mention the late Drs. Fothergill and Rutty. Vide Med. Obs. & Inquir. vol. 3.—also in the 5th vol. the former gives an account of painful affections of the face, which he attributes to cancerous acrimony, removed by the use of cicuta.—Dr. Cullen says, " I have found it in several cases (of cancer) to relieve the pains and mend the quality of the matter proceeding from the sore, and even to make a considerable approach towards healing it." Mat. Med. vol. 2. 266. Several others instance its good effects in glandular diseases; and Mr. Hunter commends its use in syphilis.

^o Dr. Butter on the Chincough.

seem only to produce a mere variation in the strength of the medicine, we conceive such pharmaceutical inquiries to be of very little importance, requiring only a proportionate adjustment of the dose, which, under the direction of a skilful practitioner, will always be regulated by its effects only, beginning with a few grains of the extract or powder, and increasing it daily ^p till a slight vertigo or other symptoms manifest the sufficiency of the dose: and unless this method has been pursued, the medicine cannot be said to have had an efficient trial. " An extract from the seeds is said to produce giddiness sooner than that from the leaves. Hence, while both the London and Edinburgh Colleges have given a place to the *succus spissatus cicutæ*, into the pharmacopœia of the latter an *extractum seminum cicutæ* is also introduced." ^q

^p This should also be attended to on recommencing with a fresh parcel of the medicine, as it may differ very materially from the former preparation used; of this Dr. Cullen gives a remarkable instance, strongly evincing the necessity of such a precaution, l. c.

^q Duncan's Edin. New Dis.

The powder of the dried leaves of Hemlock seems to act with more certainty, and is more to be depended upon than the extract; great caution however is required in drying and preserving these leaves. Dr. Withering recommends the following method, which appears to us extremely proper: " Let the leaves be gathered about the end of June, when the plant is in flower. Pick off the little leaves, and throw away the leaf stalks. Dry these selected little leaves in a hot sun, or in a tin dripping pan or pewter dish before the fire. Preserve them in bags made of strong brown paper, or powder them and keep the powder in glass vials, in a drawer or something that will exclude the light, for the light soon dissipates the beautiful green colour, and with its colour the medicine loses its efficacy. From 15 to 25 grains of this powder may be taken twice or thrice a day. I have found it particularly useful in chronic rheumatisms, and also in many of those diseases which are usually supposed to arise from acrimony. The nature of this book does not allow minute details of the virtues of plants, but I can assure the medical practitioner, that this is well worth his attention." Bot. Arrang. 2d Ed. p. 280.

DAPHNE MEZEREUM.

MEZEREON.

SYNONYMA. Mezereum. *Pharm. Lond.* & *Edin.* Thymelæa spica cylindrica, superne foliosa. *Hal. Stirp. Helv.* n. 1024. Chamelæa Germanica. *Dodon. Purg.* p. 130. Chamelæa Germanica sive Mezereon. *Gerard. Hist.* 1402. *Park.* 201. *Raii Hist.* 1587. Laureola folio deciduo, flore purpureo; officinis Laureola fœmina. *Baub. Pin.* 462. Daphnoides. *Camer. Epit.* 937. Daphne floribus sessilibus, infra folia elliptica lanceolata. *L. Fl. Lap.* 105. Daphne Mezereum, *Flor. Dan.* 268. *Withering's Bot. Arrang.* 402.

* Varietates sunt,

α Floribus rubris.

β Thymelæa Lauri folio deciduo, flore albo, fructu flavescente. *Du Hamel Arb.* 2. p. 325. n. 4. *Du Roi Hort.* 1. p. 213. Vide *Hort. Kew.*

Class Octandria. Ord. Monogynia. L. Gen. Plant. 485.

Eff. Gen. Ch. Cor. 4-fida corollacea, marcescens, stamina includens. *Bacca* 1-sperma.

Sp. Ch. D. floribus sessilibus ternis caulinis, foliis lanceolatis deciduis.

THE Mezereon is a hardy shrub, which usually grows to the height of five or six feet, and sends off several branches; the exterior bark is smooth, and of a grey colour; the root is of a fibrous texture, of a pale colour, and covered with smooth olive-coloured bark; the leaves are few, tender, lance-shaped, sessile, deciduous, and appear at the terminations of the branches after the flowers are expanded; the

* Dr. Russel found no difference in the effects of these varieties, by the trials he made with the rind, which is the only part of the root now in use.



Daphne Mezereum

flowers surround the branches in thick clusters, they are sessile, monopetalous, tubular, having the limb divided into four oval spreading segments, commonly of a purple colour; the stamens are eight, alternately shorter, and concealed within the tube of the corolla; the style is very short, the stigma flat, and the germen, which is oval, becomes a reddish berry, containing a round seed. This shrub is a native of England, though not very common. It is said to grow plentifully in some woods near Andover in Hampshire, and also about Laxfield in Suffolk; but it is generally cultivated in gardens, on account of the beauty and earliness of its flowers, which appear in February and March.

This plant is extremely acrid, especially when fresh, and if retained in the mouth excites great and long continued heat and inflammation, particularly of the throat and fauces; the berries also have the same effects, and, when swallowed, prove a powerful corrosive poison, not only to man,^a but to dogs,^b wolves, foxes,^c &c. The bark and berries of Mezereon, in different forms, have been long externally used to obstinate ulcers and ill-conditioned sores. In France the former is strongly recommended as an application to the skin, which under certain management^d produces a continued serous discharge, without blistering; and is thus rendered useful in many chronic diseases of a local nature, answering the purpose of what has been called a perpetual blister, while it occasions less pain and inconvenience.

^a Mulierculæ ruri baccas Coccumgnidii propinat in morbis rebellibus, saepe effectu deleterio. Bergius M. M. p. 307. A woman gave twelve grains of the berries to her daughter, who had a quartan ague; she vomited blood, and died immediately. Wither. l. c. As the acrimony of these berries is not immediately perceived upon being tasted, the ignorant and unwary are the more easily betrayed to swallow them.

^b Haller. l. c. ^c Lin. Fl. Lap. p. 105.

^d As some may wish to try this practice, which is unknown to this country, and promises beneficial effects in several complaints, we shall briefly recite the usual mode in which it has been conducted:—A square piece of the recent bark, about an inch long, and three quarters of an inch broad, macerated a little in vinegar, is applied to the skin, over which is bound a leaf of ivy or plantane. This application is at first renewed night and morning till it cauterizes the part and brings on a serous discharge, when a renewal of the bark once in 24 hours is found sufficient to continue the issue for any length of time. By means of suitable plasters, we conceive that it might be applied behind the ears to relieve the eyes, and on a larger scale prove an useful practice in sundry diseases.—It must be observed however, that it sometimes produces cutaneous eruptions, which Bergius attributes to the absorption of the acrid particles of the bark. l. c. vide Essai sur l'usage & les effets de l'écorce du Garou.

In this country the Mezerion is principally employed for the cure of some syphilitic complaints, and in this way Dr. Donald Monro was the first who gave testimony of its efficacy in the successful use of the Lisbon diet drink.^e A few months after this, several cases were published by Dr. Russel, then physician to St. Thomas's Hospital, fully establishing the utility of the cortex mezerei in venereal nodes.^f He says, "the disease for which I principally recommend the decoction of mezereon root as a cure, is the node, that proceeds from a thickening of the membrane of the bones, which appears to be the cause of the greatest part of those tumours, at least when recent.—In a thickening of the periosteum from other causes I have seen very good effects from it." But in the nocturnal pains, accompanying syphilis, unless occasioned by the node itself, he found it necessary to join a solution of sublimate to the decoction.^g We may also remark, that Dr. R. never found the decoction to increase any of the natural evacuations. Dr. Cullen observes, that "Dr. Home has not only found this decoction to cure scirrhouus tumours, which remain after the lues venerea, and after the use of mercury, but that it healed also some scirrhouus tumours from other causes; and that he has employed it in several cutaneous affections, and sometimes with success."^h

The considerable and long continued heat and irritation that is produced in the throat when Mezereon is chewed, induced Dr. Withering to think of giving it in a case of difficulty of swallowing, seemingly occasioned by a paralytic affection. The patient was directed to chew a thin slice of the root as often as she could bear it, and in about a month recovered her power of swallowing. This woman had suffered the complaint three years, and was greatly reduced, being totally unable to swallow solids, and liquids but very imperfectly.ⁱ

^e Eff. & observ. phis. & lit. p. 402. vol. 3. ^f Med. Observ. & Inquir. vol. 3. p. 189.

Dr. R. first joined sarsaparilla to the mezereon, but afterwards used the following only:

Rx Cort. rad. Mezerei ʒj
Aq. fontan. cong. iss

Coc. ad cong. j sub fin. addend. rad. glycyrrhiz. incis. ʒj. dos. lbs quater in die.
And by this many of the patients were entirely cured without ever taking mercury.

^h M. M. vol. 2. p. 215.

ⁱ l. c.



Digitaria purpurea

Published by Dr. Woodville May 1. 1790.

DIGITALIS PURPUREA. COMMON FOX-GLOVE.

SYNONYMA. Digitalis. *Pharm. Lond. & Edin.* Digitalis foliis calycinis ovatis, galea simplice. *Hal. Stirp. Helv.* no. 330. Virga regia major, flore purpureo. *Cæsalp.* 348. Aralda Bononiensibus. *Gesner.* Digitalis purpurea vulgaris. *Park.* 1653. Digitalis Purpurea. *Gerard. Herb.* 790. *J. Baub. II.* 811. *Raii Hist.* 767. *Synop.* p. 283. *Flor. Dan.* 774. *Curtis Flor. Lond.* *Withering's Account of the Fox-glove.*

Varietates. α Digitalis purpurea, folio aspero. *Baub. Pin.* 243.
 β Digitalis alba, folio aspero. *Baub. Pin.* 244. *Hort. Kew.*

Clas. Didynamia. *Ord.* Angiospermia. *L. Gen. Plant.* 758.

Eff. Gen. Ch. *Cal.* 5-partitus. *Cor.* campanulata, 5-fida ventricosa.
Caps. ovata, 2-locularis.

Sp. Ch. D. calycinis foliolis ovatis acutis, corollis obtusis: labio superiore integro.

THE root is biennial, branched, and fibrous; the stalk is erect, simple, tapering, covered with fine hairs or down, and rises commonly to the height of four or five feet; the leaves are large, oval, narrowed towards their points, obtusely serrated, veined, * downy, and stand upon short winged footstalks; the floral leaves or bracteæ spear-shaped, sessile, purplish towards the point; the calyx consists of five segments, which are elliptical, pointed, nerved, or ribbed, and the uppermost segment is narrower than the others; the flowers grow in a long terminal spike, chiefly on one side, they are large, monopetalous, pendulous, bell-shaped,² purple, and marked on the inside with little eyes, or dark coloured dots, placed in whitish rings; the tubular part appears inflated, and almost cylindrical, but swelling towards the base, and opening at the limb into four irregular, short, obtuse segments, of these the uppermost is the shortest, appearing truncated or cut off transversely; the peduncles are round, short, villous, and bend

* On the under side these veins form a kind of net-work.

² The flowers bear some resemblance to the finger of a glove; hence the name Digitalis.

downwards by the weight of the flowers; the filaments are two long and two short, white, crooked, inserted in the bottom of the tube, and crowned with large oval yellow antheræ; the style is simple, and thickening towards the stigma, which is bifid; the germen is oval, and surrounded at the bottom by a small nectarious gland; the capsule is bilocular, and contains many blackish seeds. It grows commonly about road sides and hedges, especially in dry gravelly soils, and flowers in June and July.

The leaves of Fox-glove have a bitter nauseous taste, but no remarkable smell; they have been long used externally to sores and scrophulous tumours with considerable advantage. Respecting the internal use of this plant we are told of its good effects in epilepsy, scrophula, and phthisis; but the incautious manner in which it was employed rendered it a dangerous remedy: thus we find Ray (after reciting the case of epilepsy cured by it, as mentioned by Parkinson,) says, “*Verum medicamentum hoc robustioribus tantum convenit, siquidem violenter admodum purgat & vomitiones immanes excitat:*”^b and others, speaking of its successful exhibition in scrophula, remark, “*Sed ob nimiam remedii vehementiam, continuationem ejus necessariam detrectavit.*”^c Yet while Digitalis was generally known to possess such medicinal activity, its diuretic effects, for which it is now deservedly received in the *Materia Medica*, were wholly overlooked; that to this discovery Dr. Withering has an undoubted claim, and the numerous cases of dropsy, related by him and other practitioners of established reputation, afford incontestible evidence of its diuretic powers, and of its practical importance in the cure of those diseases.^d From Dr. Withering’s extensive experience of the use of the Digitalis in dropsies, he has been enabled to judge of its success by the following circumstances:—“ It seldom succeeds in men of great natural strength, of tense fibre, of warm skin, of florid complexion, or in those with a tight and cordy pulse. If the belly in ascites be tense, hard, and circumscribed, or the limbs in anasarca solid and resisting, we have but little hope. On the contrary, if the pulse be feeble, or intermitting, the countenance pale, the lips livid, the skin cold, the swollen belly soft and fluctuating, the anasarca limbs readily pitting

^b Raii Hist. p. 767. ^c Vide Murray’s Ap. Med. vol. 1. p. 192. ^d See his account of the Fox-glove, published 1785; a book, which, in the opinion of Dr. Cullen, “should be in the hands of every practitioner of physick,” (M. M.)

under the pressure of the finger, we may expect the diuretic effects to follow in a kindly manner.”^e Of the inferences which he deduces, the fourth is, “ that if it (Digitalis) fails, there is but little chance of any other medicine succeeding.” Thus we are to infer, that men of great natural strength, and under the other circumstances just mentioned, when affected with dropsy, have little to hope for from the use of this diuretic, and still less from any other medicine.^f As this observation is the result of experience, and of considerable practical consequence, we wish particularly to press it on the attention of the medical reader. Although the Digitalis is now generally admitted to be a very powerful diuretic, and many cases may be adduced of its successful use^g in addition to those already published, yet it is but justice to acknowledge that this medicine has more frequently failed than could have been reasonably expected, from a comparison of the facts stated by Dr. W.^h—“ The dose of the dried leaves, in powder, is from one grain to three twice a day. But if a liquid medicine be preferred, a dram

^e I. c. p. 189. & seq. ^f In such cases Dr. W. attempts to induce a change in the constitution, and thereby to fit it for the action of the Digitalis. Would not repeated purging, according to Sydenham’s plan, succeed best in these cases?

^g The author could bring many instances were it necessary, of the good effects of the Digitalis: a clinical patient at Guy’s Hospital, treated by Dr. Relph last winter, afforded a striking proof of the efficacy of this medicine in hydrothorax.

^h Among the principal of the unsuccessful cases we may notice the eight fatal ones related in the Medical Memoirs by Dr. Lettsom. In reply to these cases, Dr. Withering sent me the following Letter, * which is published by the permission of Dr. Lettsom, who authorizes me to say, that as his only object in this business is the investigation of truth, he willingly appeals to the justice and candour of the public, how far his practice is fairly represented in Dr. Withering’s letter:

SIR, * Please to accept my thanks for your offer of inserting any thing new which I might have to say respecting the Digitalis; but I really have nothing new to observe, nor have I any thing to retract of what I have said before. Under my own management, under that of the medical practitioners in this part of England, and I may add, also in the hands of some worthy and respectable Clergymen in village situations, it continues to be the most certain, and the least offensive diuretic we know; in such cases, and in such constitutions, as I have advised its exhibition. I have also the satisfaction to find, by letters from some of the most eminent Physicians in different parts of England, that it is equally useful and safe in their hands. But I complain of the treatment this medicine has had in London. Its ill success there cannot be altogether owing to difference of constitutions. Dr. Lettsom has related his unsuccessful attempts with a degree of courage, and of candour, which do the highest honour to his integrity; * but no one can compare his choice of patients, with my declarations of the fit and the unfit, or the doses he prescribed; and the perseverance he enjoined, with my doses, rules, and cautions, ||

* Memoirs of the Med. Society of London, vol. II, p. 145. || Account of the Fox-glove p. 181, 184, et seq. without

dram of the dried leaves is to be infused for four hours in half a pint of boiling water, adding to the strained liquor an ounce of any spirituous water. One ounce of this infusion, given twice a day, is a medium dose. It is to be continued in these doses till it either acts upon the kidneys, the stomach, the pulse, (which it has a remarkable power of lowering) or the bowels."

without being astonished that he could suppose he had been giving this medicine "in the "manner prescribed by me."†— I am fully satisfied, that, had I prescribed it in such cases, such forms, such doses, and such repetitions as he has done, the effects would, in my hands, have been equally useless, and equally deleterious. I must therefore suppose, that he had forgotten what I had written, without being conscious that his memory had deceived him. Had it been otherwise, after perusing the cases I had published at pages xx. and pages 151, &c. of my ACCOUNT, &c. he would hardly have thought it necessary to have published more instances of what I had stigmatized as *bad practice*; or to have sought for further proofs, that an active and useful medicine might be employed so as to prove a delceterious poison.

† Memoirs of the Medical Society of London, vol. II. page 169.

ARUM MACULATUM. COMMON ARUM, or WAKE-ROBIN.

SYNONYMA. Arum. *Pharm. Lond.* & *Edin.* Arum foliis sagittatis, spatha recta, clava cylindrica. *Hal. Stirp. Helv.* n. 1302. Arum minus. *Camerar. Epit.* p. 367. Arum maculatum et vulgare non maculatum. *Baub. Pin.* 195. Arum vulgare maculatum et non maculatum. *Park.* 372. Arum vulgare. *Gerard. H.* 834. *Raii Hist.* 1208. Wake-Robin Cuckow-pint. *Raii Synop.* 266. Arum Maculatum. *Flor. Dan.* 505. *Flor. Lond.* Withering's *Bot. Arrang.* 1012. Relhan's *Flor. Cant.* 342.

Varietates sunt

- α Arum vulgare non maculatum. *Baub. Pin.*
- β Arum maculatum, maculis candidis, vel nigris. *Baub. Pin.*
- γ Arum italicum, foliis hastatis acutis, petiolis longissimis, spatha maxima erecta. *Mill. Diet.*

Class Gynandria. Ord. Polyandria. L. Gen. Plant. 1028.

Eff. Gen. Ch. *Spatha monophylla*, cucullata. *Spadix supra nudus*, inferne femineüs, medio stamineus.

Sp. Ch. A. acaule, foliis hastatis integerrimis, spadice clavato.



Arum maculatum

Published by Dr Woodville May 1 1790.

THE root is perennial, tuberous, about the size of the thumb, sending off many long simple fibres: the leaves are commonly three or four, growing from each root; these are arrow-shaped, of a deep green or purplish colour, beset with many veins and dark spots, and stand upon long grooved and somewhat triangularly shaped footstalks; the flower stalk is very short and channelled; the calyx is a sheath of one leaf, large, oval, nerved, and enclosing the spadix, which is round, club-shaped, fleshy, above of a purple colour, below whitish, standing in the centre of the sheath, and supporting the parts necessary to fructification: on tracing it towards the base we first discover the nectaries, or several oval corpuscles, which are terminated by long tapering points; next to these are placed the antheræ, which are quadrangular, united, and of a purple colour; under these we find again more nectaries, and lastly the germina, which are very numerous, round, without styles, and crowned with small bearded stigmata. This curious species of inflorescence displays itself early in spring, but the berries do not ripen till late in the summer, when they appear in naked clusters, of a bright scarlet colour, making a conspicuous appearance under the hedges, where they commonly grow.

The root is the medicinal part of this plant, which in a recent and lactescent state is extremely acrimonious, and upon being chewed excites an intolerable sensation of burning and pricking in the tongue, which continues for several hours: when cut in slices and applied to the skin, it has been known to produce blisters. This acrimony, however, is gradually lost by drying, and may be so far dissipated by the application of heat, as to leave the root a bland farinaceous aliment; its medical efficacy therefore resides wholly in the active volatile matter, and consequently the powdered root must lose much of its power on being long kept, a circumstance which very properly caused the omission of the *Pulvis ari compositus* in the

[*Arum*, by a modern botanist, is arranged under the class *Monœcia*.]

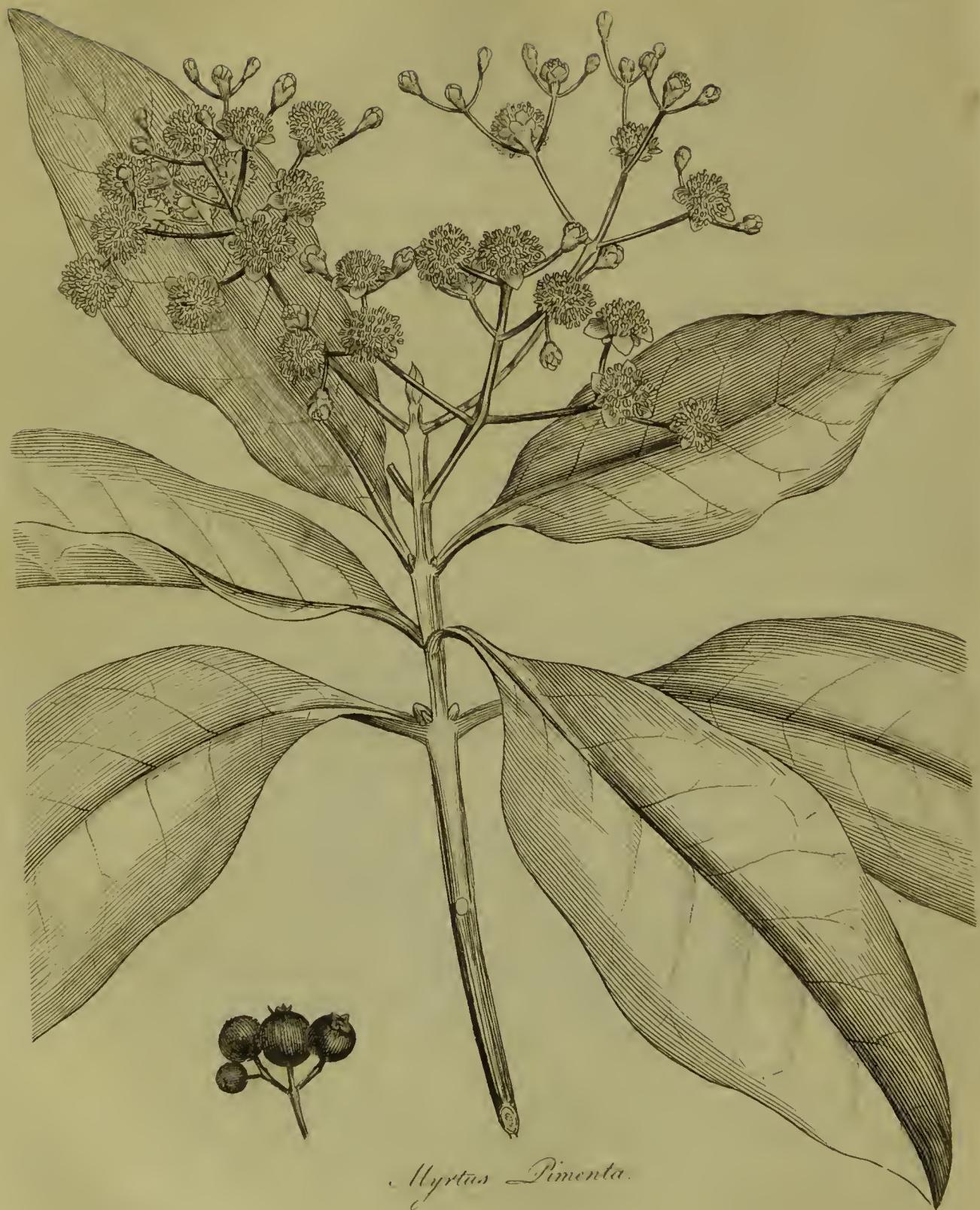
^a In this state it has been made into a wholesome bread. It has also been prepared as starch. The root, dried and powdered, is used by the French to wash the skin with, and is sold at a high price, under the name of *Cypress Powder*: It is undoubtedly a good and innocent cosmetic. Withering, l. c. — These roots are also said to possess a saponaceous quality, and have been used in washing linen, to supply the place of soap. Raii Hist. p. 1208.

last edition of our Pharmacopœia. Lewis says, “ the fresh and moderately dried roots were digested in water, in wine, in proof spirit, and in rectified spirit, with and without heat: the liquors received no colour, and little or no taste. In distillation neither spirit nor water brought over any sensible impregnation from the Arum. The root, nevertheless, loses in these operations almost the whole of its pungency.”^b The qualities of this root are thus enumerated by Bergius: “ *Virtus recent. siccatae*: stimulans, aperiens, incidens, diuretica; *recentis* vehementissima; *annosæ* || nutriendi.”^c— Dr. Cullen ^d seems to consider it as a general stimulant, not only exciting the activity of the digestive powers, where they happen to be languid, but stimulating the whole system; in proof of this he observes, that it has been useful in intermittent fevers. Arum, by ancient writers, is much commended, both as an external and as an internal remedy, and is said that “ *Ratione particularum tenuium & volatilium mucum viscidum & spissum ventriculi & intestinorum parietibus adhærentem potenter incidit, attenuat, atque resolvit;*” and was prescribed in all that numerous class of diseases formerly supposed to proceed a succorum lentore. Bergius considers it useful in Colluvies pituitosa, Anorexia, Cephalæa sympathica, ^e Asthma humorale, Cachexia, Febris intermittens. Arum is certainly a very powerful stimulant, and by promoting the secretions may be advantageously employed in cachectic and chlorotic cases, in rheumatic affections, and in various other complaints of phlegmatic and torpid constitutions; but more especially in a weakened or relaxed state of the stomach, occasioned by the prevalence of viscid mucus. If this root is given in powder, great care should be taken that it be young and newly dried, when it may be used in the dose of a scruple or more twice a day: but in rheumatisms and other disorders requiring the full effects of this medicine, the root should be given in a recent state, and to cover the insupportable pungency it discovers on the tongue, Dr. Lewis advises us to administer it in the form

^b Lewis M. M. 119. ^c M. M. 722. ^d M. M. vol. 2. 212.

|| Tales radices Ari annosæ vix acres sunt, prout supra monuimus, & quæ restare potest acrimonia, mitigatur penitus ebullitione. Cæterum plures Ari species apud varias gentes esculentæ sunt. Nutrunt omnes suo farinoso. Bergius, l. c.

^e Bergius speaks highly of the efficacy of Arum in these headaches, which were of the most violent kind, and resisted all the means he employed, till he used the powder of this root, which never failed to relieve them.



Myrtus Pimenta.

Published by Dr. Woodville June 1, 1790.

of emulsion, with gum arabic and spermaceti, increasing the dose from ten grains to upwards of a scruple three or four times a day; in this way "it generally occasioned a sensation of slight warmth about the stomach, and afterwards in the remoter parts manifestly promoted perspiration, and frequently produced a plentiful sweat. Several obstinate rheumatic pains were removed by this medicine, which is therefore recommended to further trial."

MYRTUS PIMENTA. PIMENTO, JAMAICA PEPPER,
ALL-SPICE.

SYNONYMA. Pimento. *Pharm. Lon.* Pimenta & *Piper Jamaicensis*.
Pharm. Ed. *Caryophyllus aromaticus Americanus*, *Lauri acuminatis foliis, fructu orbiculari*. *Pluk. Phyt.* 155. f. 4. *Amomum quorundam odore Caryophylli*, J. B. *Caryophyllus aromaticus fructu rotundo*, *Caryophyllum Plinii*. *Baub. Pin.* *Piper adoratum Jamaicense nostratis*. *Raii Hist.* 1507. *Myrtus arborea aromatica foliis lauriniis*. *Sloane's Jam.* vol. 2. p. 76. *Caryophyllus foliis oblongo-ovatis glabris alternis, racemis terminalibus et lateralibus*. *Browne's Jam.* p. 247. *Caryophyllus foliis lanceolatis oppositis, floribus racemosis terminalibus & axillaribus*. *Miller's Dict.*

Class Icosandria.* *Ord.* Monogynia. *Lin. Gen. Plant.* 217.

Eff. Gen. Ch. *Cal.* 5-fidus, superus. *Petala* 5. *Bacca* 2. f. 3-sperma.

Sp. Ch. M. *floribus trichotomo-paniculatis foliis oblongo-lanceolatis*.

Hort. Kew.

Varietates, α *foliis oblongo-lanceolatis acuminatis; acumine obtuso*.

β *foliis ovalibus obtusis.* *Hort. Kew.*

* " Some of these trees are frequently observed to be barren, which has introduced a notion among the people of Jamaica of their being male and female trees in general; and that some of the male or barren trees were necessary in every walk; which, as they are commonly many, is a vast detriment. It is however certain, that all those I have observed were hermaphrodites: and I am credibly informed, that those they call males, when lopped and broke like the rest for one or two years, do bear very well: which I am the more apt to believe, as I have never observed a distinct male or female flower on any of them." Browne, l. c.

THIS

THIS handsome myrtle grows above thirty feet in height, and two in circumference ; the branches near the top are much divided, and thickly beset with leaves, which by their continual verdure always give the tree a beautiful appearance ; the bark is very smooth, externally, and of a grey colour ; the leaves vary in shape, and in size, but are commonly about four inches long, veined, pointed, elliptical, and of a deep shining green colour ; the flowers are produced in bunches, or panicles, and stand upon subdividing or trichotomous stalks, which usually terminate the branches ; the calyx is cut into four roundish segments ; the petals are also four, white, small, reflex, oval, and placed opposite to each other between the segments of the calyx ; the filaments are numerous, longer than the petals, spreading, of a greenish white colour, and rise from the calyx and upper part of the germen ; the antheræ are roundish, and of a pale yellow colour ; the style is smooth, simple, and erect ; the stigma is obtuse ; the germen becomes a round succulent berry, containing two kidney-shaped flattish seeds. This tree is a native of New Spain and the West-India islands. In Jamaica it grows very plentifully, and in June, July, and August puts forth its flowers, which, with every part of the tree, breathes an aromatic fragrance.^a

The Pimento tree was first introduced and cultivated in this country by Mr. Phil. Miller in 1739, and the figure we have annexed was drawn from a recent specimen, obtained from the garden of his Grace the Duke of Northumberland at Sion-House, where the plant is now in full bloom. Pimento, or the berries of this species of myrtle, are chiefly imported into England from Jamaica, and hence the name Jamaica Pepper. It is also named All-spice from its taste being supposed to resemble that of many different species mixed together.— When the berries arrive at their full growth, but before they begin to ripen,^b they are picked from the branches, and exposed to the sun for

^a “ The leaves and bark are full of aromatic particles, which make them (the planters) extremely cautious of fire in all *Pimento* walks ; where, if it should once catch, it runs with great fury.” Browne, l. c.

^b “ Such of the berries as come to full maturity do, like many other seeds, lose that aromatic warmth for which they are esteemed, and acquire a taste perfectly like that of Juniper berries, which renders them a very agreeable food for the birds, the most industrious planters of these trees.” Browne, l. c. “ The berries when ripe are of a dark

for several days, till they are sufficiently dried; this operation is to be conducted with great care, observing that on the first and second day's exposure they require to be turned very often, and always to be preserved from rain and the evening dews. After this process is completed, which is known by the colour and rattling of the seeds in the berries, they are put up in bags or hogsheads for the market. This spice, which was at first brought over for dietetic uses, has been long employed in the shops as a succedaneum to the more costly oriental aromatics; "it is moderately warm, of an agreeable flavour, somewhat resembling that of a mixture of cloves, cinnamon, and nutmegs. Distilled with water it yields an elegant essential oil, so ponderous as to sink in the water, in taste moderately pungent, in smell and flavour approaching to oil of cloves, or rather a mixture of cloves and nutmegs. To rectified spirit it imparts, by maceration or digestion, the whole of its virtue: in distillation it gives over very little to this menstruum, nearly all its active matter remaining concentrated in the inspissated extract.

Pimento can scarcely be considered as a medicine: it is, however, an agreeable aromatic, and on this account is not unfrequently employed with different drugs, requiring such a grateful adjunct. Both the Pharmacopœias direct an aqueous and spirituous distillation to be made from these berries, and the Edinburgh College order also the Oleum essentiale piperis Jamaicensis.

dark purple colour, and full of a sweet pulp, which the birds devour greedily, and muting the seeds, afterwards propagate these trees in all parts of the woods. It is thought that the seeds passing through them, in this manner, undergo some fermentation, which fits them better for vegetating than those gathered immediately from the tree; and I believe this is the fact." Long's Jamaica, vol. 3. p. 703.

LAURUS CINNAMOMUM. CINNAMON-TREE.

SYNONYMA. *Cinnamomum.* *Pharm. Lond. & Edin.* *Cassia cinnamomea.* *Herm. Lugd. Bat.* 129. t. 655. *Pluk. Almag.* 88. *Cinnamomum foliis latis ovatis frugiferum.* *Burm. Zeyl.* 62. t. 27. *Arbor canellifera Zeylanica, cortice acerrimo seu præstantissimo, qui Cinnamomum Officinarum.* *Breyn. Prod.* ii. 17. *Cinnamomum sive Canella Zeylanica.* *Baub. Pin.* 408. *Canella seu Cinnamomum vulgare.* *Baub. Hist.* 1446. *The Cinnamon-tree of Ceylon.* *Raii Hist.* 1561. *Laurus Cinnamomum.* *Jacq. Americ.* p. 59. t. 117. *Rasse Coronde.* *Zeylonarum.*

Gloss Enneandria. *Ord. Monogynia.* *L. Gen. Plant.* 509.

Eff. Gen. Ch. *Cal.* o. *Cor. calycina, 6 partita.* *Nectarium glandulis 3, bifitis, germen cingentibus.* *Filamenta interiora glandulifera.* *Drupa 1-sperma.*

Sp. Ch. *L.* *foliis trinerviis ovato-oblongis: nervis versus apicem evanescientibus.*

THIS valuable and elegant laurel rises above twenty feet in height; the trunk extends about six feet in length, and one foot and a half in diameter; it sends off numerous branches, which are covered with smooth bark, of a brownish ash colour; the leaves stand in opposite pairs upon short footstalks; they are of an ovalish oblong shape, obtusely pointed, entire, firm, from three to five inches long, of a bright green colour, and marked with three whitish longitudinal nerves; the common peduncles grow from the younger branches, and after dividing, produce the flowers in a kind of paniculated umbel. The petals are six, oval, pointed, concave, spreading, of a greenish white or yellowish colour, and the three outermost are broader than the others; the filaments are nine, shorter than the corolla, flattish, erect,



Tiarus Cinnamomum.

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erect, standing in ternaries, and, at the base of each of the three innermost, two small round glands are placed; the antheræ are double, and unite over the top of the filament; the germen is oblong, the style simple, of the length of the stamina, and the stigma is depressed and triangular: the fruit is a pulpy pericarpium, resembling a small olive of a deep blue colour inserted in the corolla, and containing an oblong nut.

The true Cinnamon-tree is a native of Ceylon, where, according to Ray, it grows as common in the woods and hedges as the hazel with us, and is used by the Ceylonese for fuel and other domestic purposes. Its cultivation was first attempted in this country about the year 1768 by Mr. Philip Miller, who observes "that the Cinnamon and Camphire-trees are very near akin," and that if the berries of these trees were procured from the places of their growth, and planted in tubs of earth, the plants might be more easily reared than by layers, which require two years or more before they take root. We wish, however, to caution those who make the trial, to plant this fruit immediately upon being obtained from the tree; for Jacquin remarks, "Cæterum ad sationem transportari semina nequeunt, quum paucos intra dies nuclei corrumpantur, atque effœti evadunt."^a Ray seems to think that the *Cassia cinnamomea* of Herman, the *Cassia lignea*, and the *Cassia fistula* of the ancient Greek writers, were the same, or varieties of the same species of plant.^b But an inquiry of more importance is, whether the Cinnamon of Ceylon is of the same species as that growing in Malabar, Sumatra, &c. differing only through the influence of the soil and climate in which it grows, or

^a Jacquin's Americ. At Ceylon, "it is particularly owing to a certain kind of Wild Doves, which, from their feeding on the fruit of the Cinnamon-tree, they call *Cinnamon-eaters*, that these trees grow so plentifully in this island." A. Seba Ph. Trans. vol. 36. p. 105.

^b It is necessary to observe, that the ancient signification of these names is very different from the modern. The younger branches of the tree, with their bark covering them, were called by the Greek writers κινναμωμόν Cinnamomum, and sometimes ξυλοκυσία, or *Cassia lignea*; but when they were divested of their bark, which by its being dried became tubular, this bark was denominated καστία σύρηξ, or *cassia fistula*.—But as in process of time the wood of this tree was found useless, they stripped the bark from it, and brought that only; which custom prevails at this day. See Account of the Cinnamon-tree by Dr. Watson, Phil. Trans. vol. 47.

from the culture or manner of curing the Cinnamon. Mr. White and Mr. Combes, who have investigated this subject with considerable attention, agree with Gracias, and determine this question in the affirmative.*

The use of the Cinnamon-tree is not confined to the bark, for it is remarkable that the leaves, the fruit, and the root, all yield oils of very different qualities, and of considerable value: that produced from the leaves is called Oil of Cloves, and Oleum Malabathri: that obtained from the fruit is extremely fragrant, of a thick consistence, and at Ceylon is made into candles, for the sole use of the King; and the bark of the root not only affords an aromatic essential oil, or what

* According to many botanical writers the principal marks of distinction of these plants are to be found in the leaf, which in the Cinnamon of Ceylon is more oval and less pointed than the others, and the nerves do not reach to the margin; while in the Cinnamon of Sumatra they are said to be continued to the extremity of the leaf.—Respecting the bark it is well known to be less warm and grateful to the taste, manifesting that viscosity on being chewed which is never observable in the Ceylon Cinnamon. But Mr. White, with the assistance of Dr. Matty, carefully compared the specimens of the Cinnamon-tree, (commonly called Cassia) which he had from Sumatra, with those from Ceylon, preserved in the British Museum, which were the collections of Boerhaave, Courteen, Plukenet, and Petiver, and found the difference so inconsiderable, as fully to justify his opinion. In Murray's edition of the *Systema Veg.* we find superadded to the description of Cassia, “*Esse modo Varietatem præcedentis, (Cinnam.) foliis angustioribus et obtusioribus,* Thunberg in *Act. Stockh.* 1780.. p. 56. The difference of the bark itself is thus stated by Ray, “*Officinæ nostræ Cassiam ligneam a Cinnamomo seu Canella distinctam faciunt, Cassiam Cinnamomo crassiorem plerumque esse colore rubicundiores, substantia duriorem, solidiores & compacteres, gustu magis glutinoso, odore quidem & sapore Cinnamomum aptius referre, tamen Cinnamomo imbecilliorem & minus vegetam esse ex accurata observatione.* Tho. Johnson.” But Mr. White says, “ From the specimens I shall now produce, it will most plainly appear, that these differences are merely accidents, arising from the age of the Canella, the part of the tree from whence it is gathered, and from the manner of cultivating and curing it.” And he observes, “ If any conjecture can arise from hence, it may be, that the Cinnamon of Ceylon was formerly, as well as that of Sumatra and Malabar, called Cassia; but that the Dutch writers, being acquainted with the excellent qualities which the ancients ascribed to their Cinnamon, chose to add the name Cinnamon to that of Cassia; and in process of time they have found the name of Cinnamon more profitable than that of Cassia, by which we chuse to call our Canella, to our national loss of many thousands a year.” (Phil. Trans. vol. 50. p. 887.) How far the reasoning of Mr. White is really well founded, we leave to the judgment of others; it may however be remarked, that his opinion is not a little supported, from the consideration that the Cinnamon plant varies exceedingly, even in the island of Ceylon, where Burman collected nine different sorts, and Seba actually describes ten.

has

has been called Oil of Camphor, and of great estimation for its medical use, but also a species of camphor, which is much purer and whiter than that kept in the shops.

The spice, so well known to us by the name of Cinnamon, is the inner bark of the tree ; and those plants produce it in the most perfect state, which are about six or seven years old, but this must vary according to circumstances. Seba says, “ Those which grow in the vallies, where the ground is a fine whitish sand, (and there are many such vallies in the island of Ceylon) will in five years time be fit to have the bark taken off. Others, on the contrary, which stand in a wet slimy soil, must have seven or eight years time to grow before they are ripe enough.” And the bark of those trees, which stand in a very dry soil, and much exposed to the sun, has often a bitterish taste, which Seba attributes to “ the camphor being by the sun’s rays rendered so thin and volatile, that it rises up and mixes with the juice of the tree.” The bark, while on the trees, is first freed of its external greenish coat ; it is then cut longitudinally, stripped from the trees, and dried in sand, till it becomes fit for the market, when it is of a reddish yellow, or pale rusty iron colour, very light, thin, and curling up into quills or canes, which are somewhat tough, and of a fibrous texture. It is frequently mixed with cassia, which is distinguished from the Cinnamon by its taste being remarkably slimy. This bark is one of the most grateful of the aromatics ; of a very fragrant smell, and a moderately pungent, glowing, but not fiery taste, accompanied with considerable sweetnes, and some degree of astringency. Its aromatic qualities are extracted by water in infusion, but more powerfully by it in distillation, and in both ways also by a proof spirit applied. Cinnamon is a very elegant and useful aromatic, more grateful both to the palate and stomach than most other substances of this class : by its astringent quality, it likewise corroborates the viscera, and proves of great service in several kinds of alvine fluxes, and immoderate discharges from the uterus. The aromatic principle is an essential oil, which is obtained by distilling

“ If you taste the inner membrane of the bark when fresh taken off, you will find it of most exquisite sweetnes, whereas the outward part of the bark differs but very little in taste from the common trees ; but in drying, the oily and agreeable sweetnes communicates and diffuses itself throughout the whole outward part.” Seba l. c.

at once large quantities of this spice, or rather cassia, which is usually employed in these operations; and the oil thus separated is so extremely pungent, that on being applied to the skin it produces an eschar; in doses of a drop or two diluted, by means of sugar, mucilages; &c. it is one of the most immediate cordials and restoratives in languors, singultuses, and all debilities. This oil is imported from the East-Indies, and a tincture, a simple, and a spirituous water, are directed by the Pharmacopœias to be prepared from this spice.

GLECOMA HEDERACEA. GROUND-IVY, Or, GILL.

SYNONYMA. *Hedera terrestris.* *Pharm. Edin.* *Gerard.* 856.
Raii Hist. vol. 1. 567. *Synop.* 243. *Hedera terrestris vulgaris.*
Baub. Pin. 306. *Park. Theat.* 676. *Chamæcissus* sive *Hedera*
terrestris. *J. Baub.* vol. 3. 855. *Chamæclema caule procumbente*
radicato, foliis reniformibus, rotunde crenatis. *Hal. Stirp. Helv.*
No. 245. *Glecoma hederacea.* *With. Bot. Arrang.* 603. *Relhan*
Flor. Cant. 225. *Curtis Flor. Lond.* *Flor. Dan.* t. 789.

Class Didynamia. *Ord.* Gymnospermia. *L. Gen. Plant.* 714.

Eff. Gen. Ch. *Antherarum* singulum par in formam crucis connivens.
Calyx 5-fidus.

Sp. Ch. *G.* foliis reniformibus crenatis.

THIS plant has a small, perennial, creeping, fibrous root, which puts forth stalks from six inches to a foot and a half in height; these are square, procumbent, and at the knots or joints woolly; the leaves are of a roundish kidney-shape, scolloped, hairy, and stand in opposite pairs upon channelled footstalks; the flowers grow in verticilla, or whorls of three, four, or five together, on short peduncles, placed about the footstalks of the leaves; the calyx is tubular, permanent, striated,



Glechoma hederacea.

striated, rough, and divides into five unequal pointed segments; the flower is blue, monopetalous, bilabiated, with a slender compressed tube; the upper lip is cleft, erect, blunt, the lower lip is expanded, large, divided into three lobes, of which the middle one is the largest, and is notched at the end; the bracteæ are small, tapering, and grow from the peduncles; the filaments are four, two long and two short, covered by the upper lip, and the antheræ of each pair approach so as to form a cross; the style is filiform, the stigma is bifid, and pointed; the seeds are four, oval, naked, and lodged in the calyx. It is a well known plant, growing commonly under hedges, and flowering in April.

Ground-ivy has a peculiar strong smell,^a and its taste is bitterish, and somewhat aromatic. It is one of those plants which was formerly in considerable estimation, and supposed to possess great medicinal powers, but which later experience has been unable to discover; in proof of this, its name is omitted in the catalogue of the *materia medica* by the London College. The qualities of this plant have been described by different authors, as pectoral, detergent, aperient, diuretic, vulnerary, corroborant, errhine, &c.—and it has been variously recommended for the cure of those diseases to which these powers seemed most adapted, but chiefly in pulmonary^b and nephritic^c complaints. In obstinate coughs it is a favourite remedy with the poor, who probably experience its good effects by still persevering in its use. Ray, Mead, and some others, speak of its being usefully joined with fermenting ale;* but Dr. Cullen observes, “it appears to me frivolous. In short, in many cases where I have seen it employed, I have had no evidence either of its diuretic or of its pectoral effects. In

^a Dr. Withering has observed, that the leaves are “beset underneath with hollow dots, in which are glands secreting an essential oil, and above with little eminences, but which do not secrete any odoriferous oil; for this surface being rubbed gives out no peculiar scent, whereas the under surface affords a pleasant reviving scent.” l. c.

^b Willis, *Pharm. rat.* fe&t. 1. c. 6. Morton, *Phthisiologia*, lib. 3. Cap. 5. Sauvages Nosol. Tom. 3. P. 2. cap de phthisi. Ettmuller, *Oper. T.* p. 639. Scardona Aphoris. lib. 2. p. 69. River. *Prax.* P. 1. p. 397. See also Ray, Gerard, Miller, and others.

^c Paulli Quadrip. bot. p. 74. Sennertus. *Oper. T.* 3. p. 576. Plater. *Prax. Tom.* 2. p. 499. Reusn. *Observ. Med.* p. 90. apud Welch. *Mead Mon. et præc. med.* p. 97.

* From the general use of Ground-ivy, mixed with alc, &c. it acquired the name of Ale-hoof and Tun-hoof.

common with many other of the verticillatæ, it may be employed as an errhine, and in that way cure a head-ach,^a but no otherways by any specific quality." It is usually taken in the way of infusion, or drunk as tea.

^a Ray gives a remarkable instance of its efficacy in this way, in the case of Mr. Oldacres, and says, " Succus hujus plantæ naribus attractus cephalalgiam etiam vehementissimam & inveteratam non lenit tantum sed & penitus aufert—Medicamentum hoc non satis potest laudari, si res ex usu æstimarentur, auro æquiparandum." l. c.

COCHLEARIA OFFICINALIS. COMMON SCURVY-GRASS.

SYNONYMA. *Cochlearia hortensis.* *Pharm. Lond. & Edin.*

Cochlearia. *J. Baub.* 2. 942. *Cochlearia rotundifolia.* *Gerard.* 324. *Cochlearia folio subrotundo.* *Baub. Pin.* 110. *Cochlearia major rotundifolia* sive *Batavorum.* *Park.* 285. *Cochlearia.* *Raii Hist. Spec.* 1. p. 822. *Synop.* 302. *Nasturtium foliis radicalibus subrotundis, caulinis oblongis, subsinuatis.* *Hal. Stirp. Helv.* No. 503. *Cochlearia officinalis.* *With. Bot. Arrang.* 677. *Flor. Dan.* t. 135.

Clas *Tetradynamia.* *Ord. Siliculosa.* *L. Gen. Plant.* 803.

Eff. Gen. Ch. *Silicula emarginata,* *turgida,* *scabra;* *volvulis gibbis,* *obtusis.*

Sp. Ch. *C. foliis radicalibus cordato-subrotundis;* *caulinis oblongis* *subsinuatis.* *Caulis ramosus.*

THE root is perennial, fibrous, and usually produces several upright branched angular stems, about a span high; the radical leaves are heart or kidney-shaped, fleshy, succulent, and stand upon long footstalks; the stem-leaves alternate, rhomboidal, blunt, and dentated on each side; towards the top the leaves are sessile, or embracing the stem, but towards the bottom they are frequently upon short broad footstalks; the flowers are cruciform, and stand upon short peduncles, terminating



Cochlearia officinalis.

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terminating the branches in thick clusters; the calyx consists of four leaflets, which are oval, blunt, concave, gaping, deciduous, and whitish at the margin; the petals are four, white, oval, spreading, and twice the length of the calyx; the filaments are six, four long and two short, greenish, tapering, and crowned with yellow antheræ; it has no style, and the germen becomes a small roundish compressed pod, containing rough seeds. It is found on the mountains of Scotland, Cumberland, and Wales, but more commonly about the Sea shores: it flowers in April and May.

We have figured this plant from a specimen obtained from Mr. Curtis's botanic garden at Brompton, where it differs in no respect from the same plants growing in their native soil, a circumstance which induces many to cultivate Scurvy-grass in gardens for medical use. It has an unpleasant smell, and a warm acrid bitter taste. " Its active matter is extracted by maceration both in watery and in spirituous menstrua, and accompanies the juice obtained by expression. The most considerable part of it is of a very volatile kind; the peculiar penetrating pungency totally exhaling in the exsiccation of the herb, and in the evaporation of the liquors. Its principal virtue resides in an essential oil, separable in a very small quantity, by distillation with water."^a—Scurvy-grass^b is antiseptic, attenuant, aperient, and diuretic, and is said to open obstructions of the viscera and remoter glands, without heating or irritating the system; it has been long considered as the most effectual of all the antiscorbutic plants,*

^a Lewis M. M. 242. " The oil is so ponderous as to sink in the aqueous fluid, but of great volatility, subtilty, and penetration. One drop dissolved in spirit, or received on sugar, communicates to a quart of wine, or other liquors, the smell and taste of Scurvy-grass." Lewis l. c.

^b This species is now preferred to all the other species of *Cochlearia* for its medical use.

^c See the experiments of Sir John Pringle.

* We have testimony of its great use in scurvy, not only from physicians, but navigators, as Anson, Linschoten, Maartens, Egede, and others. And it has been justly noticed, that this plant grows most plentifully in those high latitudes, where the scurvy is most obnoxious: Forster found it in great abundance in the islands of the South Sea. In Islandia parant incolæ hanc herbam cum lacte acidulato vel ejus sero; condunt eam etiam sale culinari in magnis doliis, & per hiemem servant. Cum oves in locis, ubi *Cochlearia* crescit, pascuntur, avide quidem illam edunt & valde pingueſcunt, sed caro nauseoso sapore inficitur. Olafsen. *Reise durch Island.* T. I. p. 257. Vide Berg. M. M. 557.

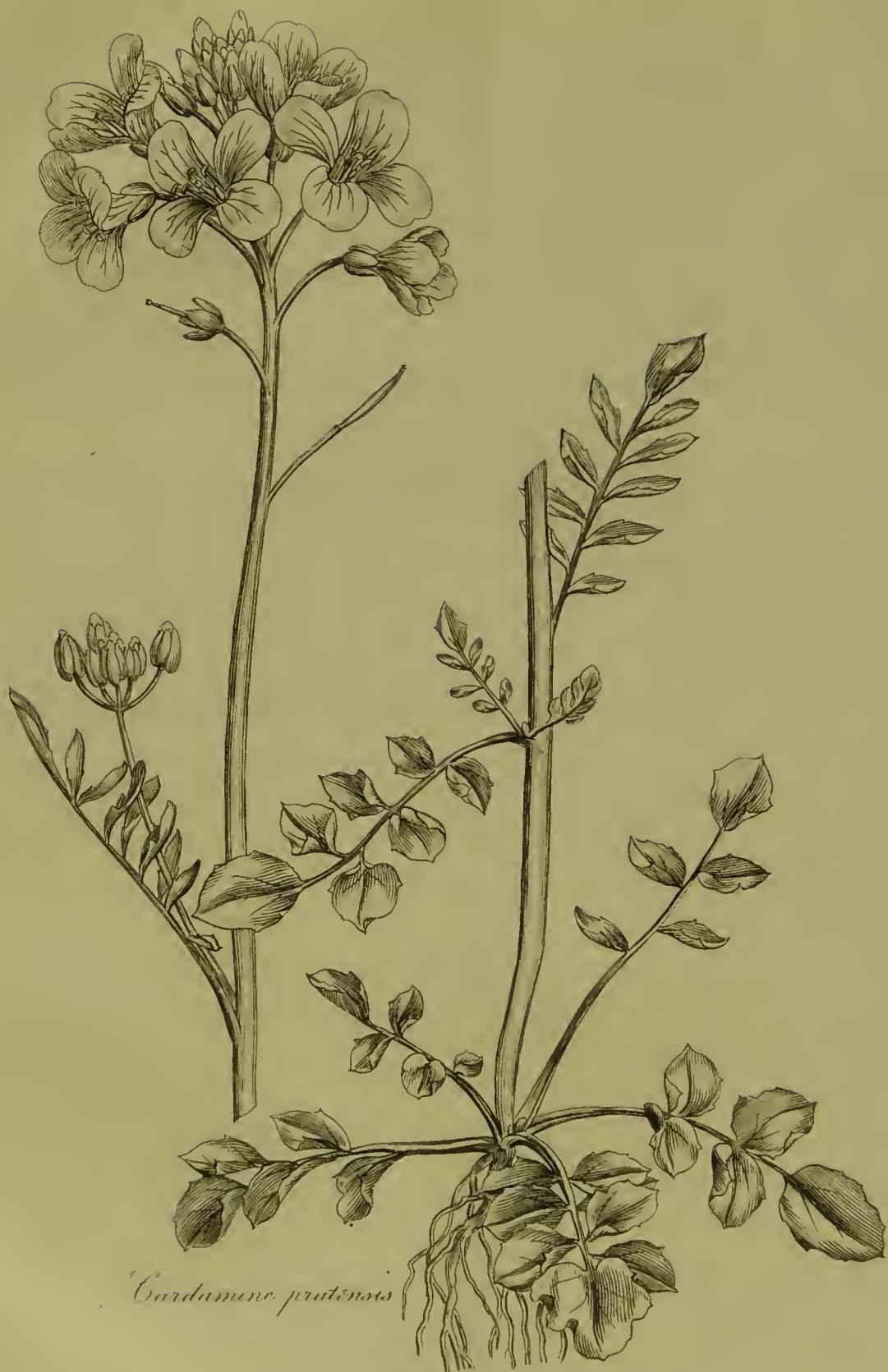
and its sensible qualities are sufficiently powerful to confirm this opinion. In the rheumatismus vagus, called by Sydenham Rheumatismus scorbuticus, consisting of wandering pains of long continuance, accompanied with fever, this plant, combined with Arum and wood-forrel, is highly commended both by Sydenham and Lewis.^d—A remarkably volatile and pungent spirit, prepared from this herb, and known by the name of *Spiritus antiscorbuticus s. mixtura simplex antiscorbutica Drawizii.*^f (*Pharm. Wert.*) was found by Werlhof^e to be a useful remedy in paralysis and other diseases requiring an active and powerful stimulant, given in the dose of thirty drops several times a day. But as an antiscorbutic, neither this, nor the conserve promises so much benefit as the fresh plant, eaten as fallad, or the expressed juice, as directed in the *Pharmacopœias*.

^d *Opera* 278. M. M. 241.

^f Fit ex spiritu tartari et spiritu cochleariae, quibus vitriolum ad rubidinem calcinatum irroratur, succedente digestione et distillatione. *Murray Ap. Med.* vol. 2. p. 347.

^e Obs. de febr. p. 145. Dr. Cullen observes, that “several foreign dispensatories have ordered it to be treated by distillation with spirit of wine, and have thereby obtained a volatile poignant spirit, that may prove a useful stimulus in several cases. It may probably be improved by a combination with the volatile acid of tartar, as in the *spiritus antiscorbuticus Drawitzii*, and in this state may be a useful stimulant in paralytic cases; it may also be employed as a diuretic, and in this way also be useful in scurvy.” *M. M.* vol. 2. 165.

CARDAMINE PRATENSIS.



Cardamine pratensis

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CARDAMINE PRATENSIS. COMMON LADIES-SMOCK,
Or, CUCKOW-FLOWER.

SYNONYMA. Cardamine. *Pharm. Lond. & Edin.* Nasturtium pratense magno flore. *Baub. Pin.* 104. Nasturtium pratense majus seu Cardamine latifolia. *Park.* 825. Iberis Fuchsii seu Nasturtium pratense sylvestre. *J. B.* 2. 889. Cardamine. *Gerard.* *Raii. Hist. Sp.* 2. p. 814. *Synop.* 299. Cardamine foliis pinnatis radicalibus subrotundis, caulinis linearibus. *Hal.* No. 473. Cardamine pratensis. *With. Bot. Arrang.* 688. *Relhan. Flor. Cant.* 255. *Curt. Flor. Lond.* α Floribus simplicibus. β Floribus plenis. *H. Kew.* Σισυμβεῖον ἐτερον. *Dioscor.*

Class Tetrodynamia. *Ord.* Siliquosa. *L. Gen. Plant.* 812.

Eff. Gen. Ch. *Siliqua* elastice diffiliens valvulis revolutis. *Stigma integrum.* *Cal.* subhians.

Sp. Ch. *C.* foliis pinnatis: foliolis radicalibus subrotundis; caulinis lanceolatis.

THE root is perennial, branched, and sends off many long round fibres; the stalk is erect, round, smooth, sometimes branched towards the top, and rises about nine inches high: the leaves are pinnated, radical leaves frequently wanting, otherwise spreading in an orbicular shape, with roundish pinnæ, which are dentated, or cut into several irregular unequal angles; the leaves upon the stalk are erect, and consist of four or five pair of pinnæ, which are narrow, spear-shaped, concave, pointed, and the odd or terminal leaflets are the largest; the flowers terminate the stem in a cluster or racemus, and stand upon smooth naked peduncles; the calyx is composed of four scaly leaves, which are oblong, obtuse, concave, deciduous, and alternately protuberant at the base; the corolla is cruciform, and of a purplish white colour; the petals are obversely veined, somewhat notched at the

the apex, and yellowish at the base ; the filaments are six, four long and two short, invested at the bottom with four nectareous glands ; the antheræ are small, oblong, and placed upright upon the summits of the filaments ; there is no style ; the germen is round, slender, about the length of the stamina, and becomes a long compressed pod of two valves, which, on opening, roll back in a spiral manner, and in the cells are contained many round seeds. It is common in meadows and moist pastures, producing its flowers in April and May.

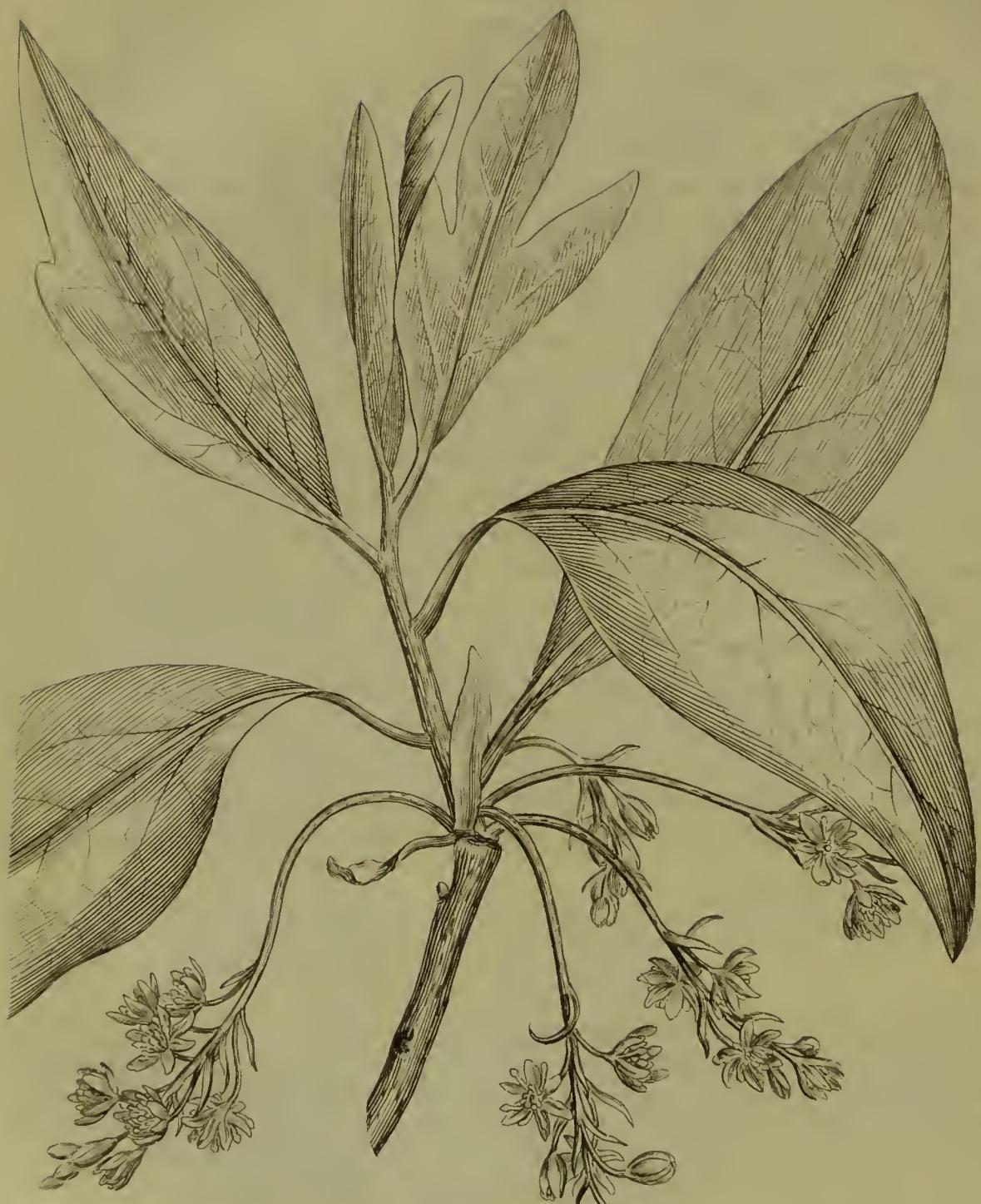
This plant has the same sensible qualities as water-cress, though in an inferior degree to it, and indeed to most of that class of plants, called by Dr. Cullen *filiqosæ*, which comprehends both the orders of *filiquosa* and *filiculosa* of Linnæus, and the cruciform of Tournefort. It is the flower of the Cardamine which has a place in the *materia medica* of the British Pharmacopœias, upon the authority of Sir George Baker, who, in the year 1767, read a paper at the London College, recommending these flowers as an antispasmodic remedy,^a which has since been published in the *Medical Transactions*.^b In this account Sir George relates five cases ^c wherein the flores cardamines were successfully used ; and in a P. S. to the second edition, he says, “ Since the first edition of this volume, I have seen several instances of the good effects of flores cardamines in convulsive disorders.” In Epilepsy, however, this remedy has been generally found unsuccessful. Greeding, who tried it in a great number of cases, and in large doses, experienced but one instance of its good effects.^d The dose of the powdered flowers is from half a dram to two drams.

^a We find no account of the use of these flowers but by Dale, who says of the plant, “ *Calida & acris est, & nasturtii pollet viribus. Flos in convulsionibus laudatur ex MSS. D. Tancred Robinson, M. D.*” *Pharmacol*, 204.

^b *Medical Transactions*, vol. 1. 442.

^c Viz. two of chorea sancti Viti, one of spasmodic asthma, an hemiplegia accompanied with convulsions on the palsied side, and a case of remarkable spasmodic affections of the lower limbs ; the two first were cured in less than a month ; the two second were also happily removed : but in the last case the patient had experienced some relief from the flor. card. when she was seized with a fever which proved fatal. See l. c.

^d Ludwig. *Advers. Medico-pract.* Vol. 3. P. 3. p. 564.



Laurus Sassafras

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LAURUS SASSAFRAS.

SASSAFRAS-TREE.

SYNONYMA. Sassafras. *Pharm. Lond. & Edinb.* *Cornus mas* *odorata*, *folio trifido*, *margine plano*, *Sassafras dicta*. *Pluk. Alm.* 120. *Gatesb. Carolin.* i. p. 55. *Sassafras sive lignum pavanum*. *J. Bauk.* i. 483. *Sassafras*, *arbor ex Florida*, *siculneo folio*. *Bauk. Pin.* 431. *Sassafras*. *Gerard emac.* 1525. *Park. Theat.* 1606. *Raii Hist.* ii. 1568. *Laurus foliis integris trilobisque*. *Trew. Ehret.* t. 69. *Duham. Arb.* i. p. 350. *Kalm. Canad.* 2. p. 270.

Class Enneandria. *Ord.* Monogynia. *L. Gen. Plant.* 503.

Eff. Gen. Ch. *Cal.* o. *Cor.* calycina, 6-partita. *Nectarium glandulis* 3, bifetis, *germen cingentibus*. *Filamenta interiora glandulifera*. *Drupa* 1-sperma.

Sp. Ch. L. *fol.* trilobis integrisque.

THE Sassafras tree rises sometimes to the height of twenty or thirty feet,* and is about twelve or fifteen inches in diameter, but it is commonly of much less growth, and is divided towards the top into several crooked branches: the bark of the young shoots is smooth and green, of the old trunks it is rough, furrowed, and of a light ash-colour: the leaves vary both in form and size, some being oval and entire, others cut into two or three lobes; they are all of a pale-green colour, veined, downy on the under side, and placed alternately upon long footstalks: the flowers are produced in pendent spikes or panicles, which spring from the extremities of the shoots of the preceding year; they appear in May and June, and are generally male and female upon different trees: the corolla is divided into six leaves, which are narrow, convex, and of a dingy yellow

* Vide Marshall's *Arbustrum Americanum*, p. 75.

colour ; the male flowers have nine^a filaments, crowned with round antheræ ; the bractæ are linear, and placed at the base of the pedicels ; there is no calyx, and the berries produced by the female flowers are similar in shape and colour^b to those of the cinnamon. [See plate 27.]

The Sassafras tree is a native of North America,^c and appears to have been cultivated in England sometime before the year 1633, for in Johnson's edition of Gerard, he says, " I have given the figure of a branch taken from a little (Sassafras) tree, which grew in the garden of Mr. Wilmote at Bow." [†] It is said that the Sassafras-tree was first discovered by the Spaniards in 1538, when they possessed themselves of Florida ;^d and the wood was first imported into Spain about the year 1560, where it acquired great reputation for curing various diseases.^e It is now usually imported here in long straight pieces, very light, of a spungy texture, and covered with a rough fungous bark. It has a fragrant smell, and a sweetish aromatic subacid taste : the root, wood, and bark, agree in their medical qualities, and are all mentioned in the pharmacopœias ; but the bark is the most fragrant, and thought to be more efficacious than the woody part, and the small branches are preferred to the large pieces. " The virtues of Sassafras are extracted totally by spirit, but not perfectly by water. Distilled with the latter it yields a fragrant essential oil of

^a Miller says eight, but in the specimen figured, which was procured from a male tree in the King's garden at Kew, nine stamina were observed in all the flowers.

^b Marshall, l. c.

^c " G. Piso Monardis descriptioni circa lignum Sassafras non acquiescendum esse ait, siquidem affirmat Sassafras Floridæ lignum decorticatum vix ullius dignitatis esse, cum Brasiliense eximiæ dignitatis & virtutis habeatur, atque à cortice liberatum in aliquot annos immune servatur." Vide Raii Hist. p. 1569.

[†] This account differs from that given by Ray, who says, that — " Tho. Johnsonus in Gerardo suo emaculato : qui Sassafras arbusculæ à se visæ in horto D. Guliel. Coys Stratfordiæ propé Londinum ramulum describit & depingit, &c. Hist. l. c.

^d " It is called cinnamon-wood on account of its smell, which made the Spaniards, when they conquered Florida, in 1538, under Ferdinand de Soto, hope to find that valuable spicery there, which grows only in Ceylon." Savary Dict. ii. 1487.

^e " Ligni quoddam genus ex Florida, nunc recens in Hispaniam invehitur, cuius ante paucos annos, notitiam Gallus quidam mihi dedit, ejus facultates mirum in modum prædicans aduersus varios morbos, ut Galli experti erant, ab incolis edocti.—Dicitur Indis Pavame, Gallis, nescio quam ad causam, Sassafras." Monard. Hist. ed anno 1569.

a penetrating pungent taste, and so ponderous as to sink in water. Rectified spirit extracts the whole taste and smell of Sassafras, and elevates nothing in evaporation; hence the spirituous extract proves the most elegant and efficacious preparation, as containing the whole virtue of the root." Sassafras, according to Bergius, is " sudorifera, diuretica, purificans," and useful in " rheumatism, cutaneous diseases, and ulcers." Lewis says that it is used as a mild corroborant, diaphoretic, and sweetener in scorbutic, venereal, cachectic, and catarrhal disorders.^f Its medical character was formerly held in great estimation, and its sensible qualities, which are stronger than any of the other woods, may have probably contributed to establish the opinion so generally entertained of its utility in many inveterate diseases; for soon after its introduction into Europe, it was sold at a very high price,^g and its virtues were extolled in publications professedly written on the subject.^h It is now, however, thought to be of very little importance, and seldom employed, but in conjunction with other medicines of a more powerful nature. Dr. Cullen " found that a watery infusion of it taken *warm*, and pretty *largely*, was very effectual in promoting sweat; but (he adds) to what particular purpose this sweating was applicable, I have not been able to determine."ⁱ In some constitutions Sassafras, by its extreme fragrance, is said to produce head-ach; to deprive it of this effect the decoction ought to be employed.

Sassafras is an ingredient in the decoctum sarsaparillæ compositum, or decoctum lignorum; but the only officinal preparation of it is the essential oil, which may be given in the dose of two drops to ten. Watery infusions made both from the cortical and woody part, rasped or shaved, are commonly drunk as tea; but the spirituous tincture, or extract, which contains both the volatile and fixed parts of the medicine, appears to be preferable.

^f Lewis M. M.

^g Viz. 50 livres per pound.

^h See Sassafrasologia, &c. published by J. R. Bremane, 1627. ⁱ Cullen's M. M. ii. 200.

LAURUS NOBILIS.

COMMON SWEET-BAY.

SYNONYMA. Laurus. *Pharm. Lond. & Edinb.* *Dodon.* 849.
Camer. Epit. 60. *Gerard emac.* 1407. *J. Bauh. Hist.* 1. 405.
 The Common Bay-tree. *Raii Hist.* 1688. *Laurus vulgaris.*
Bauh. Pin. 460. *Laurus major sive latifolia.* *Park. Parad.* 598.
Laurus nobilis. *Trew. nov. act. ph. med. A. N. C. vol. 2. p. 381.*
Laurus foliis ovato-lanceolatis, ramis florigeris, folio brevioribus.
Hall. Stirp. Helv. n. 1602. *Arbor Δαρψη Fructus Δαρψιδης Dioscor.*

Class Enneandria. *Ord.* Monogynia. *L. Gen. Plant.* 503.

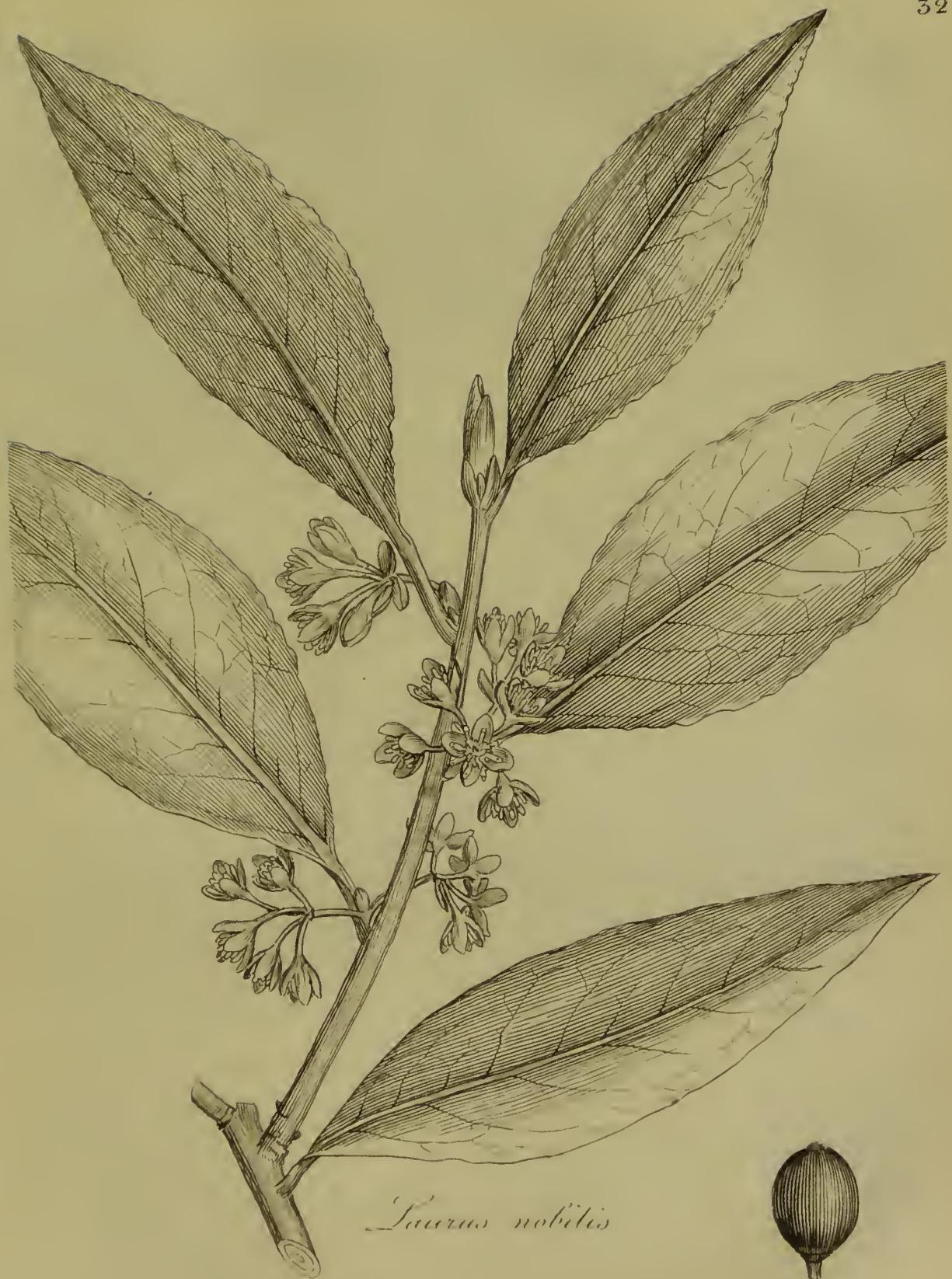
Eff. Gen. Ch. *Cal.* o. *Cor.* calycina, 6-partita. *Nectarium glandulis*
3 bifetis, german cingentibus. *Filamenta interiora glandulifera.*
Drupa 1-sperma.

Sph. Ch. *L.* foliis venosis lanceolatis perennantibus, floribus quadrifidis.

THE Bay-tree never rises to any considerable height, but usually sends off many radical shoots, which grow close and bushy:^a the bark is smooth, and of a dark olive colour: the leaves are elliptical, pointed, smooth, veined, entire, often waved at the margin, of a shining green colour, and stand erect upon short channelled footstalks: the flowers come forth in April and May, and, like those of the Sassafras, are male and female upon different plants;* they appear in clusters of three or four together, standing upon short peduncles at the axillæ of the leaves; the corolla divides into four oval leaves, which stand erect, and are of a yellowish white colour; the stamens vary in number, from seven to thirteen; there is no calyx, and the glands, &c. correspond with the generic description: the style of the

^a Tum spissa ramis laurea servidos
 Excludet ielus.—*HOR. lib. ii. Ode xv.*

* We have figured the male plant.



Laurus nobilis

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female flowers is very short, and the german becomes an oval berry, covered with a dark green rind, and separable into two lobes or cotyledons.

This tree is a native of Italy, and other southern parts of Europe, and the first account we have of its cultivation in England is given by Turner in 1562; ^b it is a handsome evergreen, and now very common in the shrubberies and gardens of this country. The leaves and berries possess the same medicinal qualities, both having a sweet fragrant smell, and an aromatic astringent taste.—The berries are imported from the Streights, and are much stronger than the leaves. “ In distillation with water the leaves yield a small quantity of very fragrant essential oil: with rectified spirit they afford a moderately warm pungent extract. The berries yield a larger quantity of essential oil: they discover likewise a degree of unctuousness in the mouth, give out to the press an almost insipid fluid oil, and on being boiled in water a thicker butyraceous one, of a yellowish green colour, impregnated with the flavour of the berry.” ^d

The Laurus of honorary memory, ^c the distinguished favourite

^b Turn. Herb. part 2. fol. 32. in Hort. Kew. cit. ^c Lewis M. M. 382.

• Their spicy warmth has recommended them for culinary purposes, and in this way they were much used by the Romans, “ Apud veteres Romanos inter cibi condimenta in culinis frequenter adhibebantur, ut testatur Apicius Cœlius.” And the leaves both of this plant, and the common laurel, are frequently used in custards, &c. But the practice has by many been discontinued, since a recent and fatal proof of the poisonous qualities of the latter was made public. To such we may observe, that the common laurel, or *Prunus Lauro cerasus* of Linnæus, differs very materially from the plant here represented, both in its effects and in its botanical characters. The common sweet bay may be thus used not only with safety but with the advantage of assisting digestion: and it has even been thought to obviate the poisonous effects of the laurel: “ Aqua stillatitia Lauri, secundum Clar. Cantwell, antidotus est aquæ stillatitiæ Lauro cerasi.” (Hall. l. c.) It may be remarked, however, that the deleterious part of the laurel is the essential oil which requires to be separated by distillation, in order to become an active poison.

• *Laurus planta est, Apollini lucidissimo sacra: quin etiam a Jove colitur.* It was not only generally worn as a triumphal crown, but, by the Emperor Tiberius, as a protection against thunder. “ *Laurum fulmine non percuti veteribus persuasum fuit.*” “ *Eadem superstitione nititur observatio illa de crepitu quem folia & virgæ Lauri inter urendum edunt. Nam si crepuissent abundè ac sonatiūs, haud dubie portendi felicem eventum rebantur: quod si tacita deflagrassent, tristem & inauspicatum.*” The Laurus, as well as the Olive, was considered as an emblem of peace, and called *Laurus pacifera*, “ *si ejus rami prætendebantur inter armatos hostes, firmum quietis erat indicium.*” (*Matthiol.*) *Mufas in Laurinis montis Parnassi sylvis sidere finixerunt. Eadem coronabantur Poëtæ.* Necnon adhuc quibusdam in locis novi Medicinæ Doctores Lauro coronantur: inde fortasse *Laureandi & Laureati* dicuntur. (*Geoff.*)

of Apollo,^f may be naturally supposed to have had no inconsiderable fame as a medicine;^g but its pharmaceutical uses are so limited in the present practice, that this dignified plant is now rarely employed, except in the way of enema, or as an external application; thus, in the London pharmacopœia the leaves are directed in the decoctum pro fomento, and the berries in the emplastrum cumini. The berries however appear to possess some share of medicinal efficacy,^h and if we do not allow them to be so extensively useful as represented by J. Bauhin, Tournefort, Geoffroy, and some others, yet we have no doubt of their virtus, stomachica, resolvens, pellens menses, urinam, sudorem, as stated by Bergius, who recommends them only in hysteria. They have been long thought to act with peculiar power upon the uterine system, and on this account we are cautioned against their use in pregnancy.ⁱ An infusion of the leaves is sometimes drunk as tea; and the essential oil of the berries may be given from one to five or six drops, on sugar, or dissolved by means of mucilages, or in spirit of wine.

^f Cui Deus, At conjux quoniam mea non potes esse,
Arbor eris certe, dixit, mea. Semper habebunt
Te coma, te citharæ, te nostræ, Laure, pharetræ.
Tu ducibus Latiis aderis, cum læta triumphum
Vox canet; & longæ visent Capitolia pompæ.
Postibus Augustis eadem fidissima custos
Ante fores stabis; mediamque tuebere quercum.
Utque meum intonsis caput est juvenile capillis;
Tu quoque perpetuos semper gere frondis honores.

OVID. Met. I. v. 557.

^g "Laurus apud veteres medicos magnum habuit in medicina usum, & veluti panacea estimata fuit." Geoff.

^h Haller says, "Calida & aromatica planta, semine potissimum, cuius vires a medicis nondum pro dignitate per experimenta exploratae sunt." l. c.

ⁱ Baccas Lauri interne sumptas, abhorret cl. Spielmann, ob vim prout dicit, infamem abortum promovendi, sanguinemque multum exæstuandi, etiam ubi pauca solum grana data fuerint. In praxi hodierna raro exhibentur baccæ; vidi tamen plures, etiam fœminas, quæ pulverem e seminibus Capsici & baccis Lauri, supra memoratum, innoxie sumpserunt, saepè per octiduum. Bergius M. M. 324.



Solanum *Dulcamara*

Published by D. T. Woodville July 1. 1790.

SOLANUM DULCAMARA. WOODY NIGHTSHADE.

SYNONYMA. Duleamara. *Pharm. Edin.* Solanum seandens seu Dulcamara. *Baub. Pin.* 176. Glycypicros, sive Amara-dulcis. *J. Baub.* ii. 109. Amara Dulcis. *Gerard. emac.* 350. Solanum lignosum sive Dulcamara. *Park. Theat.* 350. *Raii Synopsis*, 265. *Raii Hjst.* 672. Solanum caule flexuoso frutescente, foliis supremis tripartitis & cordato-lanceolatis. *Hal. Stirp. Helv.* n. 575. *Hudson Flor. Ang.* p. 78. *Withering. Bot. Arrang.* 235. *Flor. Dan. tab.* 607. *Curtis Flor. Lond.* Στρεψις *Theophrast.*

Varietates,

α Solanum seandens seu Dulcamara. l. c.

β Solanum duleamarum afrieanum foliis crassis hirsutis. *Hort. Elt.* Vide *Hort. Kew.*

Class Pentandria. *Ord.* Monogynia. *L. Gen. Plant.* 251.

Eff. Gen. Ch. *Cor.* rotata. *Antheræ* subcoalitæ, apice poro gemino dehiscentes. *Baccæ* 2-locularis.

Sp. Ch. S. caule inermi frutescente flexuoso, foliis superioribus hastatis, racemis cymosis.

THE stalk is slender, climbing, alternately branched, somewhat angular, brittle, hollow, and frequently rises above six feet in height: it is covered with bark of an ash-colour, and that of the young branches is of a purple hue: the leaves are long, oval, pointed, veined, and many of those near the top are halbert-shaped, but the lower leaves are entire, and of a deep green colour: the flowers hang in loose clusters or cymæ; the corolla is monopetalous, wheel-shaped, divided

divided into five pointed segments, which are bent backwards, of a purple colour, and the base of each marked with two round green spots: the tube is short, and the faux or mouth is of a shining black colour: the calyx is small, and divides into five blunt persistent segments, of a purple colour: the five filaments are short, black, and inserted in the tube of the corolla; the antheræ are yellow, erect, and unite at their points; the style is somewhat longer than the stamina, and terminated by a simple obtuse stigma; the germen is oval, and becomes a roundish bilocular berry, which finally acquires a red colour, and contains many flat yellowish seeds. It grows plentifully in hedges well supplied with water, and the flowers appear about the latter end of June.

The roots and stalks of this Nightshade, upon being chewed, first cause a sensation of bitterness, which is soon followed by a considerable degree of sweetness; and hence the plant obtained the name of Bittersweet. The berries have not yet been applied to medical use; they seem to act powerfully upon the primæ viæ, exciting violent vomiting and purging: thirty of them were given to a dog, which soon became mad, and died in the space of three hours, and upon opening his stomach, the berries were discovered to have undergone no change by the powers of digestion;^a there can therefore be little doubt of the deleterious effects of these berries; and as they are very common in the hedges, and may be easily mistaken by children for red currants, which they somewhat resemble, this circumstance is the more worthy of notice. The stipites, or younger branches, are directed for use, in the Edinburgh Pharm. and they may be employed either fresh or dried, making a proportionate allowance in the dose of the latter for some diminution of its powers by drying. In autumn, when the leaves are fallen, the sensible qualities of the plant are said to be the strongest,^b and on this account it should be gathered in autumn rather than in spring.

Dulcamara does not manifest those narcotic qualities, which are common to many of the nightshades; it is however very generally admitted to be a medicine of considerable efficacy. Murray says that

^a Floyer Pharmac. p. 86.

^b Colliguntur stipites vel primo vere vel autumni fine, foliis destituti, tumque et odor saporque insignior. Murray Ap. Med. vol. i. p. 424.

it promotes all the secretions:^c Haller observes that it partakes of the milder powers of the Nightshade, joined to a resolvēnt and saponaceous quality;^d and the opinion of Bergius seems to coincide with that of Murray: “*Virtus: pellens urinam, sudorem, menses, lochia, sputa; mundificans.*”^e The diseases in which we find it recommended by different authors are extremely various;^f but Bergius confines its use to “rheumatismus, retentio mensium & lochiorum.” Dulcamara appears also, by the experiments of Razoux and others, to have been used with advantage in some obstinate cutaneous affections.^g Dr. Cullen says, “We have employed only the stipites or slender twigs of this shrub; but as we have collected them they come out very unequal, some parcels of them being very mild and inert, and others of them considerably acrid. In the latter state we have employed a decoction of them in the cure of rheumatism, sometimes with advantage, but at other times without any effect. Though the Dulcamara is here inserted in the catalogue of diuretics, it has never appeared to us as powerful in this way; for in all the trials made here, it has hardly ever been observed to be in any measure diuretic.”^h This plant is generally given in decoction or infusion, and to prevent its exciting nausea, it is ordered to be diluted with milk, and to begin with small doses, as large doses have been found to produce very dangerous symptoms.ⁱ Razou directs the following: Rx Stipitum Dulcam. rec. drac. ss. in aquæ font. unc. 16 coquatur ad unc. 8. This was taken in the dose of

^c Per omnia colatoria corporis efficaciam exercent. l. c.

^d Vis partim solanacea, mitis, partim resolvens, quasi saponacea. l. c.

^e Mat. Med. 131.

^f See the instances adduced by Haller and Murray. l. c. Of the chief of these we may mention Phthisis, Lues venerea, Peripneumonia notha, Scorbutus, Icterus, Asthma, &c. on the authority of Boerhaave, Sauvages, Sager, and others.

^g Journ. de Medecine. t. 22. p. 236.

^h Mat. Med. ii. 354.

ⁱ Vide Linnæus Diff. de Dulcamara, p. 9. Haen. rat. med. Tom. iv. p. 247. “Largior Dulcamaræ usus initio et antequam ventriculus illi assueverit, nauseam et vomitum excitat, quin convulsiones et deliria, et notante cl. Govan, protractus paralyсин linguae.” Vide Murray l. c.

three or four drams, diluted with an equal quantity of milk every four hours.^k

^k Linnæus directs two drams or half an ounce of the dried stipites, to be infused half an hour in boiling water, and then to be boiled ten minutes; and of this decoction he gives two tea-cups full morning and evening. l. c.

POLYGONUM BISTORTA. GREATER BISTORT, Or, SNAKEWEED.

SYNONYMA. Bistorta. *Pharm. Lond.* & *Edinb.* Bistorta major. *Gerard. emac.* 399. Bistorta major vulgaris. *Park. Theat.* 391. Bistorta major rugosioribus foliis. *J. Baub.* iii. 538. Bistorta radice minus intorta. *Baub. Pin.* 192. *Raii Synopsis,* 147. *Raii Hist.* 186. *Spec.* 1. Polygonum radice lignosa contorta, spica ovata, foliorum petiolis alatis. *Hal. Stirp. Helv.* No. 1558. *Withering Bot. Arrang.* 406. *Flor. Dan.* 421. *Curtis Flor. Lond.*

Class Octandria. Ord. Trigynia. L. Gen. Plant. 495.

Eff. Gen. Ch. Cor. 5-partita, ealyeina. *Sem.* 1, angulatum.

Sp. Ch. P. eaule simplicissimo monostachyo, foliis ovatis in petiolum deurrentibus.

THE root is about the thickness of a finger, perennial, crooked, rugose, of a firm texture, and of a reddish or flesh colour, covered with a brown rind, and furnished with numerous small fibres and creepers: the stalk is simple, bending, solid, round, smooth, swelled at the joints, enclosed by the sheaths of the stipulæ, and is a foot and a half or two feet in height; the radical leaves are ovalish, or rather heart-shaped, pointed, and stand upon long winged footstalks; the upper leaves embrace the stem, and are narrower and undulated. The flowers stand upon short footstalks, and terminate the stalk in

an



Polygonum Bistorta

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an oblong close spike; the corolla is small, of tubular appearance, and divided into five oval obtuse segments, of a reddish white colour, and at the base supplied with several nectarious glands; the bracteal, or floral leaves, are membranous, withered, and each encloses two flowers; the filaments are tapering, white, longer than the corolla, and the antheræ are purple; the styles are three, about the length of the stamina; the stigmata are small and round; the german is triangular, of a red colour, and the seeds are brown and remarkably glossy.

Bistort ^a is a native of Britain;* it grows in moist meadows,^b and flowers in May and September. Every part of the plant manifests a degree of stipticity to the taste, and the root is esteemed to be one of the most powerful of the vegetable astringents. Lewis says, that this “astringent matter is totally dissolved both by water and rectified spirit; the root, after the action of a sufficient quantity of either menstruum, remaining insipid: on inspising the tinctures, the water and spirit arise unflavoured, leaving extracts of intense stipticity.”^c

The root of Bistort was formerly considered to be alexipharmac and sudorific; but its uses seem only to be derived from its styptic powers; it is therefore chiefly indicated in hæmorrhages and other immoderate fluxes. Dr. Cullen observes, that the Bistora, “both by its sensible qualities, and by the colour it gives with green vitriol, and by the extracts it affords, seems to be one of the strongest of our vegetable astringents, and is justly commended for every virtue that has been ascribed to any other. As such we have frequently employed it, and particularly in intermittent fevers, and in larger doses than those commonly mentioned in Materia Medica writers. Both by itself, and along with gentian, we have given it to the quantity of three drams a day.”^d The dose of the root in substance is from a scruple to a dram.

^a Bistora, *quasi* bis torta, twice twisted, or wreathen, is a modern name. Alston M. M. i. 399. “Radix est serpentis modo intorta.” Whence it was called Serpentaria, Colubrina, and Dracunculus. And it has been variously considered to be the Oxylapathum, Britannica, and Limonium of the ancients. Vide Bauh. Pin. 192. Matth. 946.

* In the North of England this plant is known by the name of Easter-Giant, and the young leaves are eaten in herb pudding.

^b It grows about Battersea, and by the side of Bishop's Wood near Hampstead. Curt. Flor. Lond. ^c Mat. Med. 154. ^d Mat. Med. ii. 40.

IMPERATORIA OSTRUTHIUM. COMMON MASTERWORT.

SYNONYMA. Imperatoria. *Pharm. Edinb.* *J. Baub.* iii. 137.

Gerard emac. 1001. *Hal. Stirp. Helv.* No. 805. Imperatoria major. *Baub. Pin.* 156. Imperatoria sive Astartantia vulgaris. *Park. Theat.* 942. Common Masterwort, by some erroneously Pellitory of Spain. *Raii Hist.* 436. Magistrantia. *Camer. Epit.* 592. Imperatoria Ostruthium. *Withering. Bot. Arrang.* *Lightfoot Flor. Scot.*

Gloss Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 356.

Eff. Ch. *Fructus* subrotundus, compressus, medio gibbus, margine cinctus. *Petala* inflexo-marginata.

Imperatoria *Ostruthium.* L. *Sp. Pl.* 371.

THIS is the only Imperatoria described by Linnæus. The root is perennial, large, fleshy, succulent, round, tapering, rough, articulated, externally brown, internally whitish, creeping, and sends off many lateral fibres: the stalk is thick, striated, round, jointed, and rises about two feet in height: the leaves are compound, and proceed alternately from long footstalks, which supply the stalk with a sheath covering at each articulation; the simple leaves are ovato-elliptical, pointed, irregularly serrated, and placed in treble ternaries, and the terminal leaf is commonly cut into three lobes: the general umbels are large, flat, and terminal; the partial umbel convex and unequal; there is no general involucrum; the partial involucrum consists of one or two slender leaves, nearly of the length of the radii; each flower is composed of five oval petals, which are of equal size, white, notched, and having their points bent inwards; the five filaments are tapering, white, erect, and longer than the corolla; the antheræ are double; the germen is roundish, striated, truncated, above white, beneath



Imperatoria Ostruthium

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beneath greenish : the two styles are tapering, spreading, and a little shorter than the stamina ; the stigmata are simple and obtuse. The flowers appear in May and July.

Masterwort may be considered as a native of Scotland, Mr. Lightfoot having found it growing in several places on the banks of the Clyde. It is frequently cultivated in our gardens ; but the root, which is the part directed for medical use, is greatly inferior to that produced in the South of Europe, especially in mountainous situations : hence the shops are commonly supplied with it from the Alps and Pyrenees.

This root has a fragrant smell, and a bitterish pungent taste, leaving a glowing warmth in the mouth for some time after it has been chewed. Its virtues are extracted both by watery and spirituous menstrua, but more completely by the latter.

This plant, as its name ^a imports, was formerly thought to be of singular efficacy, and was preferred to most of the other aromatics, for its alexipharmac and sudorific powers. In some diseases ^b it was employed with so much success as to be distinguished by the name of "divinum remedium." ^c At present, however, physicians consider this root merely as an aromatic, and it is of course superseded by many of that class of a superior character. Half a dram of the root in substance, and one dram of it in infusion, is the dose directed.

^a " Imperatoria ob raras & præstantes facultates nominata fuit." Vide Bauh. Pin. s. c.

^b The diseases, in which it has been chiefly recommended, are Hysteria, Hydrops, Colica, Paralysis, Vermes, Febres intermittentes. It has been also used as a sialagogue.

^c C. Hoffman. Officin. L. 2. c. 116.

FRAXINUS ORNUS. FLOWERING ASH.

SYNONYMA. Fraxinus tenuiore & minore folio. *Baub. Hist.* i. p. 177. Fraxinus humilior sive altera Theophrasti, minore & tenuiore folio. *Baub. Pin.* p. 416. Fraxinus Ornus, foliolis ferratis, floribus corollatis. *Lin. Sp. Plant.* Mannifera arbor. Succus condensatus est Manna. *Pharm. Lond. & Edinb.*

Class Polygamia. *Ord.* Dioecia. *Lin. Gen. Plant.* 1160.

Eff. Gen. Ch. HERMAPHROD. *Cal.* o, f. 4-partitus. *Cor.* o, f. 4-petala.
Stam. 2. *Pist.* 1. *Sem.* 1, lanceolatum.
FEM. *Pist.* 1, lanceolatum.

Sp. Ch. F. foliis ovato-oblongis ferratis petiolatis, floribus corollatis.

Hort. Kew.

THIS tree greatly resembles our common ash: it is lofty, much branched; and covered with a greyish bark. The young shoots produce the leaves, which are pinnated, opposite, and consist of several pair of pinnæ, or small leaves, terminated by an odd one, pointed, serrated, veined, standing upon footstalks, of an oval or oblong shape, and bright green colour. The flowers grow in close thick branched spikes, and open in May and June. In the specimen we have figured, the flowers were all hermaphrodite; the corolla divided into four narrow whitish segments, somewhat longer than the stamina; the two filaments tapering, and crowned with large furrowed erect antheræ; the germen oval, and a little compressed; the style short and cylindrical; the capsule is long, flat, membranous, and contains a single flat pointed seed.

This tree is a native of the southern parts of Europe, particularly of Sicily and Calabria.^a It was first introduced into England about

^a The Ornus is observed by Dr. Cirillo to be very common on the famous mountain Garganus, so that the words of Horace may still apply;

aut Aquilonibus

Querceta Gargani laborant,
 Et foliis viduantur orni.

L. ii. Od. 9.



Traversia *Ornata*

sixty years ago, by Dr. Uvedale;^b and at present adorns many of the gardens of this country.

The *Ornus* is not the only species of ash which produces Manna; the *rotundifolia* and *excelsior*, especially in Sicily, also afford this drug, though less abundantly. Many other trees and shrubs have likewise been observed, in certain seasons and situations, to emit a sweet juice, which concretes on exposure to the air, and may be considered as of the manna kind.^c In Sicily the three species of the *Fraxinus*, mentioned above, are regularly cultivated for the purpose of procuring Manna, and with this view are planted on the declivity of a hill, with an eastern aspect. After ten years growth, the trees first begin to yield the Manna, but they require to be much older before they afford it in any considerable quantity. Although the Manna exudes spontaneously upon the trees, yet in order to obtain it more copiously, incisions are made through the bark, by means of a sharp crooked instrument; and the season thought to be most favourable for instituting this process, is a little before the dog-days commence, when the weather is dry and serene. The incisions are first made in the lower part of the trunk, and repeated at the distance of an inch from the former wound, still extending the incisions upwards as far as the branches, and confining them to one side of the tree, the other side being reserved till the year following, when it undergoes the same treatment. On making these incisions, which

^b Vide Hort. Kew.

^c Dr. Cullen is certainly right in supposing "Manna a part of the sugar so universally present in vegetables, and which exudes on the surface of a great number of them;" the qualities of these exudations he thinks are "very little if at all different." The principal trees known to produce these mannas in different climates and seasons, are the larch, (*vide Murray Ap. Med. i. p. 17.*) the fir, (*Iac. V. Engestrom in Physiogr. Sälfkapets Handl. Vol. i. P. 3. p. 144.*) the orange, (*De La Hire Hist. de Pacad. d. sc. de Paris, 1708.*) the walnut, (*Hal. Stirp. Herb. N. 1624.*) the willow, (*Mousset in Du Hamel. Physique des arbres, P. i. p. 152.*) the mulberry, (*Micheli in Tragioni Tozzetti Viaggi, Tom. 6. p. 424.*) oaks, situated between Merdin and Diarbekir (*Niebuhr Beschreib V. Arab. p. 145.* Otter, *Voyage en Turquie et en Perse, Vol. 2. p. 264.*) also oaks in Persia near Khounfar (Otter, l. c.) the al hagi Maurorum, or the hedysarum alhagi of Linnæus; of this manna Dr. Fothergill presented a specimen to the Royal Society, which he considered as the Tereniabin of the Arabians, (*Phil. Transf. Vol. 43. p. 87.*) the cistus ladaniferus in some parts of Spain produces a manna, which, in its recent state, has no purgative quality, and is eaten by the shepherds: so that some fermentation seems necessary to give it a cathartic power, (*Vide Dillon's Travels through Spain, p. 127.*)

are

are of a longitudinal direction, about a span in length, and nearly two inches wide, a thick whitish juice immediately begins to flow, which gradually hardens on the bark, and in the course of eight days acquires the consistence and appearance in which the Manna is imported into Britain, when it is collected in baskets, and afterwards packed in large chests.‡ Sometimes the Manna flows in such abundance from the incisions, that it runs upon the ground, by which it becomes mixed with various impurities, unless prevented, which is commonly attempted, by interposing large concave leaves, stones, chips of wood, &c. The business of collecting Manna usually terminates at the end of September, when the rainy season sets in.^d

From this account it is evident, that Manna is the *succus proprius* of the tree; any arguments therefore brought to combat the ancient opinion of its being a *mel aërium*, or honey-dew, are wholly unnecessary: that, with which the Israelites were so peculiarly favoured, could only have been produced through miraculous means, and is consequently out of the province of the *natural* historian.—Manna is generally distinguished into different kinds, viz. the Manna in

‡ La manne est le principal revenu de ce pays & de quelques autres qui en sont voisins. Il monte dans une bonne année à vingt-cinq mille Louis d'or. Houel Voyage Pittoresque, tom. I. p. 53.

^a This account is taken from Houel Voyage Pittoresque, and Sestini Lettere della Sicilia, and related by Murray: to which we shall subjoin Dr. Cirillo's account, communicated to the Royal Society. Vide Vol. 60. p. 233.

“ The manner, in which the manna is obtained from the Ornus, though very simple, has been yet very much misunderstood by all those who travelled in the kingdom of Naples; and among other things they seem to agree, that the best and purest manna is obtained from the leaves of the tree; but this, I believe, is an opinion taken from the doctrine of the antients, and received as an incontestable observation, without consulting nature. I never saw such a kind, and all those who are employed in the gathering of the manna, know of none that comes from the leaves. The manna is generally of two kinds; not on account of the intrinsic quality of them being different, but only because they are got in a different manner. In order to have the manna, those who have the management of the woods of the Orni in the month of July and August, when the weather is very dry and warm, make an oblong incision, and take off from the bark of the tree about three inches in length, and two in breadth; they leave the wound open, and by degrees the manna runs out, and is almost suddenly thickened to its proper consistence, and is found adhering to the bark of the tree. This manna, which is collected in baskets, and goes under the name of *manna grassa*, is put in a dry place, because moist and wet places will soon dissolve it again. This first kind is often in large irregular pieces of a brownish colour, and frequently is full of dust and other impurities. But

when

in tear, the canulated and flaky Manna, and the common brown or fat Manna. All these varieties seem rather to depend upon their respective purity, and the circumstances in which they are obtained from the plant, than upon any essential difference of the drug: when the juice transudes from the tree very slowly, the Manna is always more dry, transparent, and pure, and consequently of more estimation; but when it flows very copiously it concretes into a coarse brown unctuous mass; hence we have a reason, why, by applying straws and other such substances to receive the flowing juice, the Manna becomes much improved: Houel, who tasted the manna when flowing from the tree, found it much bitterer than in its concrete state; this bitterness he attributes to the aqueous part, which is then very abundant, of course the manna is meliorated by all the circumstances which promote evaporation. According to Lewis, "the best Manna is in oblong pieces, or flakes, moderately dry, friable, very light, of a whitish or pale yellow colour, and in some degree transparent: the inferior kinds are moist, unctuous, and brown. Manna liquifies in moist air, dissolves readily in water, and, by the assistance of heat, in rectified spirit. On inspissating the watery solution, the Manna is recovered of a much darker colour than at first. From the saturated spirituous solution, great part of it separates as the liquor cools, concreting into a flaky mass, of a snowy whiteness, and a very grateful sweetnes."

Manna is well known as a gentle purgative, so mild in its

when the people want to have a very fine manna, they apply to the incision of the bark, thin straw, or small bits of shrubs, so that the manna, in coming out, runs upon those bodies, and is collected in a sort of regular tubes, which give it the name of *manna in cannoli*, that is, manna in tubes: this second kind is more esteemed, and always preferred to the other, because it is free and clear. There is indeed a third kind of manna, which is not commonly to be met with, and which I have seen after I left Calabria: it is very white, like sugar; but as it is rather for curiosity than for use, I shall say no more of it. The two sorts of manna already mentioned undergo no kind of preparation whatsoever, before they are exported; sometimes they are finer, particularly the *manna grassa*, and sometimes very dirty and full of impurities; but the Neapolitans have no interest in adulterating the manna, because they always have a great deal more than what they generally export; and if manna is kept in the magazines, it receives often very great hurt by the Southern winds, so common in our part of the world. The changes of the weather produce a sudden alteration in the time that the manna is to be gathered; and, for this reason, when the summer is rainy, the manna is always very scarce and very bad."

operation, that it may be given with safety to children and pregnant women ; in some constitutions however it produces troublesome flatulencies, and therefore requires the addition of a suitable aromatic, especially when given to an adult, where a large dose is necessary ; it is therefore usually accuated by some other cathartic of a more powerful kind. The efficacy of Manna is said, by Vallisnieri, to be much promoted by cassia fistularis, a mixture of the two purging more than both of them separately ; it is therefore very properly an ingredient in the electuarium e cassia.

RUTA GRAVEOLENS. COMMON RUE.

SYNONYMA. Ruta. *Pharm. Lond. & Edinb.* Ruta hortensis. *Gerard. emac.* p. 1255. Ruta hortensis major. *Park. Theat.* p. 132. Ruta sativa vel hortensis. *Baub. Hist.* iii. p. 197. Ruta hortensis latifolia. *Baub. Pin.* p. 336. *Raii Hist.* p. 874. Ruta foliis duplicato-pinnatis, lobulis ovatis. *Hal. Stirp. Helv.* No. 1003. *Ρύτην seu Περγαμον Græc.*

Class Decandria. *Ord.* Mönogynia. *L. Gen. Pl.* 523.

Eff. Gen. Ch. *Cal.* 5-partitus. *Petala concava.* *Receptac.* punctis melliferis decem cinctum. *Caps.* lobata. *Quinta pars numeri in quibusdam excluditur.*

Sp. Ch. R. foliis decompositis, floribus lateralibus quadrifidis.

THE root sends forth several shrubby stalks, which towards the bottom are strong, woody, and covered with rough, grey, striated bark ; the upper or young branches are smooth, and of a pale green colour : the leaves are compound, consisting of double sets of irregular pinnæ, which are minutely notched or crenulated, of an obversely



Ruta graveolens.

obversely oval shape, and of a glaucous or bluish green colour: the flowers are numerous, and produced in a branched corymbus on subdividing peduncles: the calyx commonly divides into four and sometimes into five pointed leaves; the corolla consists of four and frequently of five petals, these are hollow or boat-shaped, dentated or fringed at the edges, and of a yellow colour; the ten filaments are yellow, tapering, spreading, and generally lodged in the cavity of the petals; the antheræ are yellow and quadrangular; the style is short; the stigma is simple; and the germen is large, oval, green, rough, and marked by four longitudinal furrows; the seeds are angular, rough, and of a blackish colour. This shrub is a native of the South of Europe, and flowers in June and September.

The first account we have of the cultivation of Rue in Britain, is given by Turner, who published his Herbal in 1562.^a It is now extremely common in our gardens, where it retains its verdure the whole year. Rue has a strong ungrateful smell, and a bitter, hot, penetrating taste; the leaves are so acrid, that by much handling they are said to irritate and inflame the skin; and the plant, in its natural or uncultivated state, is reported to possess these sensible qualities still more powerfully. Both water and rectified spirit extract its virtues, but the latter more perfectly than the former.*

Rue was much used by the ancients, who ascribed to it many virtues. Hippocrates commends it as a resolvent and diuretic, and attributes to it the power of resisting the action of contagion, and other kinds of poisons, and with this intention it was used by Mithridates:^b this imaginary quality † of the Ruta, is now however

* Vide Hort. Kew.

* From the experiments of Beaumé it appears, that the recent plant contains but a very small portion of essential oil: thus from 21 lb. of the leaves he scarcely obtained a dram, while 10 lb. of the seeds yielded two ounces. Berg. M. M. p. 350.

^b In sanctuariis Mithridatis maximi regis devicti, Cn. Pompeius invenit, in peculiari commentario ipsius manu, compositionem antidoti, e duabus nucibus siccis, item ficis totidem & rutæ foliis viginti simul tritis, addito salis grano: & qui hoc jejunus sumat, nullum venenum nociturn illo dic. Plin. L. 23. c. 8. p. 604.

† “One virtue particularly ascribed to Rue, that of resisting contagion, or of expelling it when taken in, I hold to be absolutely without foundation.”—Cullen M. M. v. 2 p. 365.

very little credited, though so highly extolled by Boerhaave.^c According to Bergius it is “ alexiteria, pellens, emmenagoga, sudorifera, rubifaciens.” It is doubtless a powerful stimulant, and may be considered, like other medicines of the fetid kind, to have attenuating, deobstruent, and antispasmodic powers,^d and to be more peculiarly adapted to phlegmatic habits, or weak and hysterical constitutions, suffering from retarded or obstructed secretions. In the London Pharm. Ruta is directed in the form of an extract, and it is also an ingredient in the Pulvis e myrrha compositus. By some it is employed in the way of tea.

^c The opinion formerly entertained of this plant, may be collected from the Schola Salernitana, in which its virtues are thus celebrated. c. 37. p. 427.

Nobilis est ruta, quia lumina reddit acuta ;
 Auxilio rutæ, vir lippe videbis acute ;
 Cruda comesta recens, oculos caligine purgat.
 Ruta viris minuit Venerem, mulieribus addit.
 Ruta facit castum, dat lumen, & ingerit astum.
 Cocta & facit ruta de publicibus loca tuta.

^d “ I have no doubt in asserting its antispasmodic powers.” Cullen M. M. v. 2. p. 365.

SALVIA OFFICINALIS.

GARDEN SAGE.

SYNONYMA. Salvia. *Pharm. Lond. & Edinb.* Salvia major. Gerard Emac. p. 764. Dadon. Pempt. p. 288. Baub. Pin. p. 237. Salvia major vulgaris. Park. Theat. p. 49. Salvia latifolia. Baub. Hist. iii. p. 304. Raii Hist. p. 509. Σφακελες Theophrast. Ελελιοσφακον Dioscoridis existimatur esse.

Varietates,

^a Salvia major. C. Baub. *Aliorumque*, s. c.

COMMON, or GREATER GARDEN SAGE.

^b Salvia minor, aurita et non aurita. Baub. Pin. 237. Salvia minor, seu angustifolia, *Auctorum.*

*SMALL SAGE, or SAGE OF VIRTUE. **

* Both these varieties are used medicinally; and the narrow leaved sage is by many preferred to the broad.

Class Diandria.



Salvia officinalis

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Class Diandria. Ord. Monogynia. L. Gen. Plant. 37.

Eff. Gen. Ch. Cor. inæqualis. Filamenta transverse pedicello affixa.

Sp. Ch. S. foliis lanceolato-ovatis integris crenulatis, floribus spicatis, calycibus acutis.

THE root is perennial, long, and fibrous; the stalk is shrubby, square, firm, divided into many branches, and rises above two feet in height: the leaves are oblong, rough, crenulated, or finely notched at the edges, generally of a reddish or purplish tinge, and stand in pairs upon long footstalks: the flowers appear in June, and terminate the branches in long spikes, they are of a blue colour, monopetalous, tubular, and separate at the extremity into two lips; the upper lip is entire and concave, the lower divides into three roundish lobes, of which the middle one is the largest: the calyx is tubular, large, reddish, striated, bilabiated, and cut into acute segments; the two filaments are short, and crossed transversely by two others affixed to them; the antheræ are large and yellow; the style is long, filiform, of a blue colour, and the stigma is bifid; the seeds are four, roundish, naked, and placed at the bottom of the calyx.

Sage is indiginous to the southern parts of Europe, and was cultivated in this country by Gerard, who first published a figure of this plant in the year 1597, and it is now a constant inhabitant of the kitchen garden: it has a fragrant strong smell, and a warm bitterish aromatic taste, like other plants containing an essential oil; it gives out its properties more perfectly to spirituous than to aqueous menstrua. In ancient times sage was celebrated as a remedy of great efficacy;^a but, at present, few practitioners consider it as an article of much importance in the *materia medica*; and although frequently employed as a sudorific, it seems to have no advantage

^a “ Cur moriatur homo cui salvia crescit in horto ?

Contra vim mortis non est medicamen in hortis.”

— “ Salvia salvatrix naturæ conciliatrix.”

— “ Salvia cum ruta faciunt tibi pocula tutæ.”

“ Efficacia et nomen herbae dedit (a salvando) et cumulum laudum attulit, in tremore artuum, paralysi, obstrukione menstruorum, fluore albo, arthritide & rheumatismo, morbis contagiosis, aphisis, ulceribus, aliisque multis morbis, quorum nomina colligere absque testium fide non interest.” — *Murray Ap. Med. vol. 2. p. 167.*

over other plants, whose aromatic flavour renders the fluid in which they are infused more acceptable to the stomach ; and by some it has been successfully used even for the purpose of restraining inordinate sweating.^b As possessing a small share of aromatic and astringent power, it may prove a serviceable tonic in some cases of debility of the stomach and nervous system : the Chinese, who are said to have experienced the good effects of sage in this way, value it highly, and prefer it to their own tea. The power of this plant, in resisting the putrefaction of animal substances, has also been adduced in proof of its medicinal efficacy.^c

^b Infused in wine or spirit, Van Swieten found it remarkably efficacious in stopping night sweats. Vide *Comment.* tom. 2. p. 370.—Quarin remarks, that a strong infusion of sage in water was experienced to be equally successful. *Method. med. febr.* p. 37.—Baron Van Swieten also found it useful in restraining the improper continuing of a flow of milk from the breasts of women, after they had weaned their children. *Com. tom. 4.* p. 645.

^c From the experiments of Etlinger, it is discovered to have a considerable share of antiseptic power. Vide *Comment. de Salvia,* p. 16.

IRIS FLORENTINA. FLORENTINE ORRIS, or IRIS.

SYNONYMA. Iris florentina. *Pharm. Lond. & Edinb.* Gerard.

Emac. p. 52. Iris alba florentina. *Baub. Pin.* p. 31. *Parkinson Perad.* p. 180. Iris flore albo. *J. Baub. Hist.* ii. 719. *Raii Hist.* p. 1180. *Spec. 2.* Iris barbata foliis ensiformibus glabris brevioribus, scapo subbifloro. *Thunb. Diff. de Iride.* n. 5. *Iris 'Ιλλαγειν,* *Dioscor. et Græc.*

Class. Triandria. *Ord.* Monogynia. *L. Gen. Plant.* 59.

Eff. Gen. Ch. *Cor.* 6-petala, inæqualis, petalis alternis geniculato-patentibus. *Stigmata* petaliformia, cucullato-bilabiata. *Thunb. Diff. de Iride.*

Cor. 6-partita : *Petalis* alternis reflexis. *Stigmata* petaliformia. *Lin.*

Sp. Ch. I. corollis barbatis, caule foliis altiore subbifloro, floribus scellibus.

THE



Iris florentina

THE root is perennial, tuberous, ponderous, somewhat compressed, branched, fibrous, externally brown, internally of a yellowish white colour: the leaves are sword-shaped, radical, inserted in each other, pointed, shorter than the stem, and of a dull green colour: the stem is round, smooth, jointed, and about a foot in height: the flowers are large, upright, of a white colour, and often have a bluish tinge: the calyx is a spatha of two valves: the corolla divides into six segments or petals, of these, three stand erect, the other three, which are of an irregular oval shape, turn back, and at the base are painted with brown lines, and bearded with yellow hairs; the filaments are three, and crowned with long yellow antheræ; the style is short and simple; the stigma separates into three expanded segments, resembling petals, which arch over the stamina; the germen is long, of an obtusely triangular shape, and placed below the corolla; the capsule has three cavities, which contain numerous flat brown seeds.

This Iris is a native of Italy, and flowers in June: it was cultivated in England by Gerard in 1596, and is now constantly propagated by the florists; but the roots of the Orris produced in this country have neither the odour, nor the other qualities, of those of warmer climates, so that for medicinal use they are commonly imported from Leghorn.

This root, in its recent state, is extremely acrid, and when chewed excites a pungent heat in the mouth, which continues several hours: on being dried, this acrimony is almost wholly dissipated, the taste slightly bitter, and the smell agreeable, and approaching to that of violets. No essential oil has been hitherto obtained from this root, but spirituous tinctures of it contain more of its virtues than watery infusions. The fresh root is a powerful cathartic, and for this purpose its juice has been employed in the dose of a dram and upwards in dropsies. It is now chiefly used in its dried state, and ranked as a pectoral, or expectorant, and hence has a place in the *Trochisci amyli* of the London Pharm. We have however no evidence of its expectorant powers, and therefore must consider it as valuable only for the pleasantness of the perfume, and the flavour which it communicates.^a

^a "What this might do in its recent and acrid state, I cannot determine; but in the dried state, in which we commonly have it in our shops, we are persuaded of its being a very insignificant expectorant." Cullen M. M. v. 2. p. 459.

IRIS PSEUDACORUS. YELLOW WATER FLAG.

SYNONYMA. Iris Palustris. *Pharm. Edin.* Iris palustris lutea. *Gerard Emac.* 50. Acorus adulterinus. *Baub. Pin.* p. 74. Acorus palustris, &c. *Park. Theat.* p. 1219. Yellow Water Flower-de-luce. *Raii Hist.* p. 1185. *Synop.* 374. Iris caule inflexo, foliis ensiformibus; petalis erectis minimis reflexis imberbis. *Hal. Stirp. Helv.* n. 1260. Iris Pseud-Acorus. *Lightfoot Fl. Scot.* p. 86. *Withering Bot. Arrang.* p. 39. *Curt. Fl. Lond.*

Class Triandria. *Ord.* Monogynia. *L. Gen. Plant.* 59.

Eff. Gen. Ch. *Cor.* 6-petala, inæqualis; petalis geniculato-patentibus. *Stigmata* petaliformia, cucullato-bilabiata. *Thunb. Diff. de Iride.*

Sp. Ch. I. imberbis, foliis ensiformibus, petalis alternis, stigmate minoribus. *Thunb.* l. c.

THE root is perennial, thicker than the thumb, of an irregular shape, horizontal, on the outside blackish, covered with rigid fibres, and puts forth many long whitish perpendicular slender roots; within it is spongy, and of a yellowish red colour; the leaves which grow from the root are upright, broad, sword-shaped, and at the bottom riding, or closely embracing, each other; those on the stalk are short, alternate, and sheathe the joints of the stem: the stalk is upright, round, smooth, alternately inclined from joint to joint: the flowers are large, showy, of a yellow colour, and stand upon short branches, which proceed from the joints of the stem: the corolla divides into six segments or petals, of these, the three inner ones are small and erect, the three outermost are large, of a roundish oval shape, turning back, and painted near the base with reddish lines: the calyx is a sheath, or spatha, of two, three, or four valves, according to the number of the flowers: the filaments are flat and tapering; the antheræ oblong,



Iris Pseudacorus.

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oblong, yellowish at the edges, purplish, and bent down by the stigmata: the germen is triangular, and placed below the corolla; the style is short and slender; the stigma divides into three petalous expansions of a yellow colour, these are oblong, bent outwards, and irregularly serrated at the extremity: the capsule is triangular, and divided into three cells, which contain numerous flat seeds of a yellow colour.

This plant is common in marshes, and on the banks of rivers, and is rendered very conspicuous by its large yellow flowers, which appear in the beginning of July. It formerly had a place in the London Pharm. under the name of *Gladeolus luteus*. The root is without smell, but has an acrid stiptic taste, and its juice on being snuffed up the nostrils, produces a burning heat in the nose and mouth, accompanied with a copious discharge from these organs: hence it is recommended both as an errhine and sialagogue.^a This root is such a powerful astringent, that it has been used instead of galls in the making of ink,^b and also for the purpose of dying black;^c and from this quality it has been successfully employed as a medicine for the cure of diarrhæas:^d When given with this intention, the root is to be well dried; for the fresh root and its juice are strongly cathartic, insomuch that 80 drops of the latter produced repeated evacuations, after jalap, gamboge, &c. had failed, and by continuing its use in an increased dose, it cured an inveterate dropsy.^e Hence Bergius says, “ *VIRTUS. recent. hydragoga, purgans. siccat. adstringens.*” The expressed juice is likewise said to be an useful application to serpiginous eruptions and scrophulous tumours.^f

^a Vide Armstrong on the diseases of children, p. 146. Cullen. M. M. v. ii. p. 439.

^b Phil. Trans. No. 117. p. 397.

^c Vide Pennant's Tour in Scotland, 1772. p. 214. Lightfoot's Flor. Scot. v. 2. p. 86.

^d Blair's Observations, &c. p. 78.

^e — “ By this time the strongest cathartics, such as Jalap, Gamboge, Mercury, &c. were quite ineffectual: whereupon Dr. Rutherford ordered 80 drops of the succus radicis, Iridis palustris, to be given every hour or two in a little syrup of buckthorn, which had very immediate effects, making him pass several Scots pints of water by stool that very night.” Medical Essays, vol. 5. p. 94. — We may here remark, that this juice is very uncertain in its operation: that which is expressed from the old roots is the most active.

^f Murray Ap. Med. vol. 5. p. 277. Lewis Mat. Med. 359.

CROTON CASCARILLA. CASCARILLA, Or,
WILLOW-LEAVED CROTON.

S Y N O N Y M A. Cascarilla. *Pharm. Lond.* & *Edinb.* olim
Elutheria *dieta*. Ricino affinis odorifera fruticosa major, rosmarini
folio, fructu tricocco albido. *Sloane Jam.* p. 133. *tab.* 86. Croton
(*Rosmarinifolium*) foliis linear-lanceolatis, glabris, subtus argenteis,
caule fruticoso, floribus spicatis terminalibus. *Mill. Dict.* Croton
lineare foliis linearibus integerrimis obtusis subtus tomentosis, caule
fruticoso. *Aiton. Hort. Kew.* vol. iii. p. 374. *Jacquin Stirp.*
Americ. 256. *tab.* 162. *Am. Acad.* 5. p. 411.

Class Monoecia. *Ord.* Monadelphia. *L. Gen. Plant.* 1083.

Eff. Gen. Ch. *MASC.* *Cal.* cylindricus, 5-dentatus.
Cor. 5-petala. *Stam.* 10-15.

FEM. *Cal.* polyphyllus. *Cor.* 0. *Styli* 3, bifidi.
Caps. 3-locularis. *Sem.* 1.

Sp. Ch. C. fol. lanceolatis acutis integerrimis petiolatis subtus
tomentosis; caule arboreo.

THIS shrub never rises to any considerable height; it sends off several round branches, and is covered with a brown bark, the external coat of which is white and rough: the leaves are long, narrow, entire, somewhat pointed, placed on short footstalks, above of a bright green colour, beneath downy, and of a silvery whiteness; the stipulæ, or scaly leaves, are narrow and lance-shaped; the flowers are produced about July, in a long terminal spike, and are both male and female: the male flowers are placed uppermost, and are furnished with a cylindrical calyx, cut at its extremity into five segments; the petals are five, small, oval, and of a white or yellowish colour; the stamens are



Croton jucarilla

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are numerous, commonly from ten to fifteen. The *female flowers* have no corolla; the calyx consists of five or six oval leaves; the styles are three, forked; the capsule divides into three cells, each of which contains a single seed.

Writers on the *Materia Medica* have differed much respecting the plant which produces the officinal cortex *cascarillæ*;^a and even now this point does not appear to be sufficiently ascertained: the London College has therefore cautiously avoided making any botanical reference to the plant which affords it. Linnæus, whose authority is certainly the best, in his first edition of the *Mat. Med.* considered the *Cascarilla* as a species of the *Clutia*; but in the second edition it is described as a *Croton*, and in his *Amœnitates Academicæ* we are again presented with the *Clutia Cascarilla*.^b What adds to this uncertainty is, that under both these genera it is referred to the same synonyma of Sloane and Browne; yet it is remarkable, that neither of these authors notices the medicinal uses of its bark,^c although so long known as a medicine in great estimation in every part of Europe.

The plant,^d from which the annexed figure of the *Cascarilla* is taken, was found to agree very accurately with the generic character of the *Croton*, as the plate itself must evince: we are therefore under no difficulty in assigning it to that genus. Whether the *Cascarilla* then is really a *Croton* or a *Clutia*, depends upon the fidelity and precision with which the synonyma have been respectively applied.*

^a This may be understood from the following names:

Cortex Thuris. Dale Pharmac. p. 346. *Cortex Thuris nonnullis dictus, vel Thymiana. Raii Hist.* 1841. *Storax rubra officinarum. Baub. Pin.* 453. *Thus Judæorum. Park. Theat.* 1602. *Schakarilla, Chakarilla. Mout. Exot.* 8. *Kina-kina Aromatica, Cascarilla, Cortex Eleterii sive Scacarilla officinarum, Cortex peruvianus griseus sive spurius. Geoff. M. M.* ^b *Vide vol. 5. p. 411.*

^c It is mentioned only as being used in medicated baths, and for fomentations. *Vide Sloane l. c. Thé Ricinoides Elæagni folio* of Catesby, is stated by him to be a good aromatic bitter, and, on being burnt, to yield a fine perfume. *Carolin. vol. 2. p. 46. Walter, in his Flor. Carolin,* does not mention the *Cascarilla*, though he discovered a new species of the *Croton*.

^d This specimen was procured from the garden at Sion-House, the seat of his Grace the Duke of Northumberland.

* Murray, Bergius, Spielman, the Edinburgh and most of the foreign Pharm. make it a *Croton*.

According

According to Lewis, the cortex cascarillæ is imported into Europe " from the Bahama islands, particularly from that which is called Elatheria, in curled pieces, or rolled up into short quills about an inch in width ; covered on the outside with a rough whitish matter, and brownish on the inner side, exhibiting, when broken, a smooth close blackish brown surface. This bark, freed from the outer whitish coat, which is insipid and inodorous, has a light agreeable smell, and a moderately bitter taste, accompanied with a considerable aromatic warmth ; it is very inflammable, and yields, whilst burning, a remarkably fragrant smell, somewhat resembling that of musk. Its virtues are partially extracted by water, and totally by rectified spirit. Distilled with water it yields a greenish essential oil, of a very pungent taste, and of a fragrant penetrating smell, more grateful than that of the Cascarilla itself, and obtained in the proportion of one dram from sixteen ounces of the bark."^c The agreeable odour which this bark produces during its burning, induced many to smoke it mixed with tobacco,^f before it became known as a medicine in Europe, which was not till towards the latter end of the last century ; when it was recommended by Professor Stisser,^g who found it to be a powerful diuretic and carminative, and who used it with success in calcalous, asthmatic, phthisical, scorbutic, and arthritic complaints. After this it was sold at Brunswick as a species of the Peruvian bark, and many physicians in Germany experienced its good effects in fevers of the intermittent, remittent, and putrid kind.^h But while the facts establishing this febrifuge power of the Cascarilla are supported by authors of great respectability,ⁱ they are yet so little regarded, that this medicine is now very rarely prescribed in fevers, either in this country, or on the neighbouring continent. In intermittents however there can be no doubt but this bark, or indeed

^c The analysis, given by Böhmer, differs from this ; for which see *Diff. de cort. cascar.* p. 29.

^f When used in a considerable quantity in this way, it is said to produce intoxication.

^g Anno 1690. *Vide Aet. laborat. chym. specim. cap. 9.*

^h Ludovicus Apinus first employed it in fevers, and experienced great success by its use in an epidemic, which raged in the neighbourhood of Nurenburg, (by Lewis erroneously called Norway) during the years 1694 and 1695. *Feb. epidem. historica relatio.*

ⁱ Junker, Fagon, Werlhof, Santhesson, and others.



Centaurea *Benedicta*

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any other medicine possessing tonic and aromatic qualities, may frequently effect a cure. The German physicians have also given much credit to the Cascarilla as an astringent, and recommended it in hæmorrhages, and various alvine fluxes, in which several instances of its utility are recorded.^k

Dr. Cullen was in doubt whether to class this drug with the aromatics or with the tonics, but he determined upon the latter as the most proper; besides its being stomachic and corroborant, it is also reported to be diuretic: but proofs of its efficacy in particular diseases have not (as far as we know) been ascertained, nor even attempted by any adequate trials made in this country.^l We shall not therefore follow a late ingenious author, in depreciating this medicine, from a mere speculation on its sensible qualities, but rather recommend it to the medical practitioner, as deserving a farther trial. It promises most advantage given in substance, the dose of which is from 15 grains to a dram.

* Degner de dysent. bil p. 164. Bergius Mat. Med. p. 766. Hist. de l'Acad. Royale des Sc. pour l'ann. 1719.

^l What is said of it by Monro, (Milit. Hospit. p. 202.) and by Lind. (Diff. in hot climates) cannot be considered as exceptions.

CENTAUREA BENEDICTA. BLESSED, OR HOLY THISTLE.

SYNONYMA. Carduus benedictus. *Pharm. Lond.* & *Edinb.*

Gerard Emac. p. 1171. *J. Baub.* iii. 77. *Park. Parad.* p. 530.

Raii Hist. 1303. *Dodon Pempt.* 725. *Camer. Epit.* 562. *Cnicus sylvestris hirsutior* sive *Carduus benedictus.* *Baub. Pin.* 378.

Class. Syngenesia. *Ord.* Polygamia frustranea. *L. Gen. Plant.* 984.

Eff. Gen. Ch. *Recept.* setosum. *Pappus simplex.* *Cor.* radii insundibuliformes, longiores, irregulares.

Sp. Ch. C. calycibus duplicato-spinosis lanatis involucratis, foliis semidecurrentibus denticulato-spinosis.

THE root is annual, cylindrical, whitish, branched, and furnished with several slender fibres: the stalk is erect, roundish, channelled, rough, from one to two feet high, and often branched towards the top: the leaves are long, elliptical, rough, runcinate, or variously serrated, and barbed with sharp points; above of a bright green colour, underneath whitish, and reticulated: the upper leaves are sessile, and on one side extend along the stalk, but the lower leaves stand upon footstalks: the flowers are enclosed by an involucrum of ten leaves, of these the five external ones are the largest: the calyx is oval, imbricated, smooth, woolly, and consists of several squamous coverings, terminated by rigid, pinnated, spinous points: the flowers are compound, or composed of several yellow florets; those at the circumference want the parts necessary to fructification, but those at the centre are hermaphrodite, tubular, unequally divided at the limb, and dentated at their upper extremities: the filaments are five, tapering, white, downy, and inserted in the base of the corolla: the antheræ are cylindrical, tubulous, brownish, striated, and somewhat longer than the corolla: the style is filiform, and of the same length as the stamina: the stigma is yellow and cloven: the seeds are oblong, brown, striated, bent, and crowned with a hairy wing or feather, similar to that of the receptacle. It is a native of Spain and the Levant, and flowers in June and September.

The first account of the cultivation of this plant in England is given by Gerard, in 1597, and it is now usually cultivated with other exotic medicinal simples. It has an intensely bitter taste, accompanied with an unpleasant smell, which it loses upon being well dried. "Cold water, poured on the dry leaves, extracts in an hour or two a light grateful bitterness: by standing long upon the plant the liquor becomes disagreeable. Rectified spirit in a short time extracts the lighter bitter of the Carduus, but does not take up the nauseous so easily as water."^a The watery extract, by keeping, produces a salt upon its surface, which resembles nitre.^b

This plant obtained the appellation of Benedictus, from its being supposed to possess extraordinary medicinal virtues; for exclusive of those qualities which are usually attributed to bitters, it was thought

^a Lewis Mat. Med. p. 195.

^b Sal commune continere albi. Hist. de l'Acad. des Sc. de Berlin, 1747, p. 79.



Momordica Elaterium

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to be a very powerful alexiphamic, and capable of curing the plague, and other fevers of the most malignant kind; but its good effects in this way have now as little credit as those of its external use, by which cancers and carious bones are said to have been healed.^a Bergius reports, that it is antacida, corroborans, stomachica, sudorifera, diuretica, eccoprotica; and that it is useful in Anorexia, Cachexia, Cephalgia sympathica, Arthritis, Febres intermittentes. We might however, with equal propriety, attribute these virtues to many other simple bitters, from which the Carduus does not seem to be peculiarly different. In loss of appetite, where the stomach was injured by irregularities, the good effects of the Carduus have been frequently experienced.^c Formerly it was a common practice to assist the operation of emetics, by drinking an infusion of the Carduus; but the flowers of chamomile have since been substituted for this purpose, and probably may be advantageously done for several others in which the Carduus is recommended. The seeds have also been employed in emulsion with the same intention as the leaves.

^c Matthiol. in Dioscor. p. 597.

^a J. Bauh. hist. tom. 3. p. 79. Arnold de Villa Nova pract. c. 44.

^c Duncan Edinb. New Dispens.

MEMORDICA ELATERIUM. WILD, OR SQUIRTING CUCUMBER.

S Y N O N Y M A. Cucumis agrestis. *Pharm. Lond.* Cucumis asininus. *Gerard Emac.* p. 912. Cucumis sylvestris asininus dictus. *Baub. Pin.* 314. Cucumis sylvestris sive asininus. *J. Baub. i.* p. 248. *Raii Hist.* p. 647. Cucumis agrestis sive asininus. *Park. Theat.* 161. *Σικυος ἀγρειος Græcorum.* Succus fructus inspissatus, Elaterium dictus.

Class. Monoecia. *Ord.* Syngenesia. *Lin. Gen. Plant.* 1090.

<i>Eff. Gen. Ch.</i>	<i>Masc.</i>	<i>Cal.</i> 5-fidus.	<i>Cor.</i> 5-partita.	<i>Filamenta</i> 3.
	<i>FEM.</i>	<i>Cal.</i> 5-fidus.	<i>Cor.</i> 5-partita.	<i>Stylus</i> 3-fidus.
		<i>Pomum elastice dissiliens.</i>		

Sp. Ch. M. pomis hispidis, cirrhis nullis.

THE

THE root is annual, long, thick, and of a fleshy substance; it sends forth several stems, which are round, branched, thick, rough, and trailing like the common cucumber, but without tendrils: the leaves are irregularly heart-shaped, slightly sinuated, veined, above of a deep green colour, underneath paler, rough, reticulated, and stand upon strong footstalks: the flowers proceed from the base of the footstalks of the leaves, and are both male and female on the same plant: the corolla is divided into five acute segments, reticulated with green veins, and placed above the germen: the calyx consists of five narrow acute segments: the stamina, in the male flowers, are three, short, tapering, two of which have cloven antheræ, the other has a simple one; in the female flowers the filaments are very short, and without antheræ: the style is short, trifid, and terminated by oblong stigmata, of a green colour: the fruit is large, oblong, hairy, divided into three cells, which contain many flat seeds: when ripe this fruit, on being touched, bursts open with great force, and throws its contents to a considerable distance; hence the name Squirting Cucumber. It is a native of the South of Europe, and flowers in June and July.

Since the time of Gerard, the wild cucumber has been regularly cultivated in this country for medical use: all the parts of the plant are bitter, and strongly purgative,* but the dried juice, or faeculæ of the fruit, known in the shops by the name of Elaterium, is the only part now medicinally employed, and has been distinguished into white and black Elaterium: the first is prepared from the juice, which issues spontaneously, and the latter from that which is obtained by expression.[†] The method directed in the London Pharm. for preparing this medicine, is as follows:—“ Slit ripe wild cucumbers, and pass the juice (very lightly pressed) through a very fine sieve into a glafs vessel; then set it by for some hours, until the thicker part has subsided. Pour off the thinner part swimming at the top, and separate the rest by filtering; cover the thicker part which remains after filtration, with a linen cloth, and dry it with a gentle heat.”

* Radicum vis cathartica major est quam foliorum, minor vero quam fructuum. *Geoff.*

† This drug was formerly prepared in several different ways, a circumstance necessary to be attended to in the history of its medicinal effects.



Convallaria Polygonatum.

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The sensible qualities of this inspissated juice are not remarkable either to the smell or to the taste ; it is inflammable, and dissolves readily in watery or spirituous menstrua. Elaterium is a very powerful cathartic, and was frequently employed as such both by the Greek and Arabian physicians, and its use has since been much commended in hydroptic cases, particularly by Pauli,^b Sydenham,^c and Lister.^d It is undoubtedly the most violent purgative in the Materia Medica, and ought therefore to be administered with great caution, and only where the milder cathartics have proved ineffectual. The dose is from half a grain to three grains : the most prudent and effectual way in which dropfies are now treated by this remedy, is by repeating it at short intervals in small doses.

^b Although S. Pauli employed this medicine with great success, yet from the extreme violence of its operation, he thinks it should not be used until the milder purgatives have failed.

^c " Elaterium five fæcula Cucumeris agrestis, potenter, in permodica quantitate vires suas exserit, in conturbanda alvo, & fæcibus, cum serosis & aquosis humoribus copiose egerendis," &c. Op. p. 488.

^d We may also notice, that Lister observes that the patients, by taking this medicine, became very hot, and found unusual strong pulsations at the extremities of their fingers. De Hydrope, in App. Op. Mortoni, p. 25.

CONVALLARIA POLYGONATUM. COMMON SOLOMON's S E A L.

S Y N O N Y M A. Convallaria. *Pharm. Edinb.* Polygonatum latifolium flore majore odoro. *Baub. Pin.* 303. Polygonatum floribus ex singularibus pediculis. *J. Baub.* iii. p. 529. Polygonatum majus flore majore. *Park. Theat.* p. 696. Sweet-smelling Solomon's Seal. *Gerard. Emac.* 904. *Raii Synopsis,* p. 263. *Spec. 2.* *Raii Histor.* p. 665. *Withering. Bot. Arrang.* p. 354. *Flor. Dan. Icon.* 337.

^a Polygonatum Hellebori albi folio, caule purpurascente. *Raii Syn.* 263.

Class Hexandria. Ord. Monogynia. L. Gen. Pl. 425.

No. 9.

I i

Eff. Gen. Ch.

Eff. Gen. Ch. Cor. sexfida. Bacca maculosa 3-locularis.

Sp. Ch. C. foliis alternis amplexicaulibus, caule ancipiti, pedunculis axillaribus subunifloris.

THE root is perennial, horizontal, white, fibrous, beset with knobs, and said ^a to be marked with circular depressions, resembling the impressions of a seal; hence the name Solomon's Seal. The stalk is inclined, angular, smooth, and rises about a foot in height: the leaves are oval, pointed, ribbed, smooth, above of a deep green colour, underneath glaucous, and at the base embrace the stem: the flowers are long, bell-shaped, white, or tinged with green; divided at the extremity into six short segments, and hang from the same side of the stalk upon slender peduncles: the filaments are six, tapering, short, and inserted in the corolla: the antheræ are oblong and erect: the style is filiform, longer than the stamina, and crowned with a blunt triangular stigma: the germen is round, and when ripe becomes a black berry, divided into three cells, each containing a single round seed. It grows in the rocky and woody parts of England, and flowers in May and June.

The root, which is the medicinal part of Solomon's Seal, is very generally, by writers on the Materia Medica, referred to the *Convallaria multiflora* of Linnæus, or the *Polygonatum latifolium vulgare* of C. Bauhin. It is of a mucilaginous ^b quality, and has long been commonly employed as a discutient poultice to various kinds of tumours, but more particularly to bruises, accompanied with extravasation of blood in the cellular membrane: ^c it is also recommended as a cosmetic; and in Galen's time was used by women to remove pimples and freckles of the skin. Of its astringent effects, when taken internally, there can be no well grounded expectation. The berries, flowers, and leaves, are extremely acrid, and are said to be of a poisonous quality.^d

^a These depressions are more peculiarly characteristic of the *Convallaria multiflora*.

^b As a proof that these roots contain a considerable proportion of farinaceous matter, Bergius says, "Panem e radice recente, addita farina frumenti, annonæ caritate coherunt rusticci nostrates, qui fuscus fuit, & subglutinoso sapore." M. M. 271.

^c "Cataplasma e radice familiare remedium est in fugillationibus, & in omni contumione, sanguinem grumosum efficaciter discutiens." Rutty M. M. 403.

^d Vide Haller Stirp. Helv. No. 1243. Geoff. M. M.



CARUM CARUI.

COMMON CARAWAY.

SYNONYMA. Caruon, *Pharm. Lond. & Edinb.* Carum seu Careum. *Gerard Emac.* p. 1034. Caros. *J. Baub.* iii. p. 69. Cuminum pratense, Carui officinarum. *Baub. Pin.* p. 158. Carum vulgare. *Park. Theat.* p. 910. *Camer. Epit.* 516. *Raii Hist.* p. 446. *Synop.* p. 213. *Morison Umbellifer.* p. 24. *Jacq. Flor. Aust.* 393. *Haller Stirp. Helv.* N. 789. *Withering. Bot. Arrang.* p. 312. *Kægos Dioscorid.* Careum. *Plinii.*

Class Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 365.

Eff. Gen. Ch. *Fruetus* ovato-oblongus, striatus. *Involucr.* 1-phylum.
Petala carinata, inflexo-emarginata.

THE root is biennial, long, thick, white, and has a sharp sweetish taste: * the stalk is round, strong, channelled, branched, and rises to the height of two or three feet: the leaves are long, and subdivide into numerous pinnulæ or segments, which are narrow, pointed, of a deep green colour, and have a sweet taste: † the flowers grow in terminal umbels, generally consisting of ten radii, and furnished with both a general and a partial involucrum, each of which, in the specimen we have figured, consisted of four or five narrow segments: the corolla is composed of five roundish blunt petals, which are white, and curled inwards at the extremities: the five filaments are slender, about the length of the petals, and crowned with small round antheræ: the two styles are short, capillary, and furnished with simple stigmata: the seeds are two, naked, brown, bent, striated, and of an oblong shape.

* Parkinson says that these roots are better eating than parsnips.

† The leaves are said to afford an oil similar to that of the seeds.—Vide Lewis and others.

This plant produces its flowers in May and June. It is a native of Britain, and grows in meadows and low grounds ; but the seeds of the cultivated plant are said to be larger, more oily, and of a more agreeable flavour than those of the wild plant, which are hot and acrid.

Caraway seeds are well known to have a pleasant spicy smell, and a warm aromatic taste, and on this account are used for various œconomical purposes.^a "They give out the whole of their virtues, by moderate digestion, to rectified spirit. Watery infusions of these seeds are stronger in smell than the spirituous tincture, but weaker in taste : after repeated infusion, in fresh portions of water, they still give a considerable taste to spirit. In distillation, or evaporation, water elevates all the aromatic part of the Caraways : the remaining extract is almost insipid, and thus discovers, that in Caraways there is less, than in most of the other warm seeds of European growth, of a bitterish or ungrateful matter joined to the aromatic. Along with the aqueous fluid there arises in distillation a very considerable quantity, about one ounce from thirty, of essential oil ; in taste hotter and more pungent than those obtained from most of our other warm seeds."^b

The Caraway seeds are esteemed to be carminative, cordial, and stomachic, and recommended in dyspepsia, flatulencies, and other symptoms attending hysterical and hypochondrial disorders : they are also reported to be diuretic, and to promote the secretion of milk. They formerly entered many of the compositions in the Pharmacopœias ; but are now less frequently employed. An essential oil, and a distilled spirit, are directed to be prepared from them by the London College.

^a Semina Carui satis communiter ad condiendum panem. Rustici nostrates esitant juscum e pane seminibus Carui & cerevisia coctum. Distillatores seminibus Carui utuntur in rectificatione spiritus frumenti, ut ille acuatur oleo stellatitio carui, utpote calefaciente, unde spiritus fortior apparet, &c.

^b Beaume obtained from six pounds of unbruised caraway seeds four ounces of essential oil as colourless as water.



Rheum palmatum

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RHEUM PALMATUM. OFFICINAL RHUBARB.

SYNONYMA. Rhabarbarum. *Pharm. Lond. & Edin.* Rhabarbarum verum Med. *Hope, l. inf. cit.* *Rheum palmatum*; fol. palmatis acuminatis. *Lin. Spec. Plant. p. 281.* Conf. cel. Hope descriptionem in *Act. Philosoph. London. vol. 55. c. l.* Linnæi jun. in *Pl. rario. hort. Upsal.* fasc. 1. item cl. Sandemani in *Diff. de Rheo palmato*; et Milleri in ejus *Illustr. Syst. Sex.*

Class Enneandria. *Ord.* Trigynia. *Lin. Gen. Plant.* 506.

Eff. Gen. Ch. *Cal.* o. *Cor.* 6-fida, persistens. *Sem.* 1, triquetrum.

Sp. Ch. R. foliis palmatis acuminatis scabriusculis: sinu baseos dilatato, petiolis supra obsolete sulcatis margine rotundatis. *Aiton. Hort. Kew.*

THE root is perennial, thick, of an oval shape, and sends off long tapering branches; externally it is brown, and internally of a deep yellow colour: the stalk is erect, round, hollow, jointed, sheathed, slightly scored, branched towards the top, and rises to the height of six or eight feet: the radical leaves are numerous, large, rough, of a roundish figure, and deeply cut into lobes, and irregularly pointed segments, and stand upon long smooth round footstalks: the leaves which proceed from the stalk are placed at the joints, which they supply with membranous sheathes, and are successively smaller towards the upper part of the stem: the flowers terminate the branches, which they surround in numerous clusters, forming a kind of spike, and appear in April and May: the corolla divides into six obtuse segments, which are of a greenish white colour, and alternately smaller: the calyx is wanting: the filaments are nine, slender, about the length of the corolla, and furnished with oblong double antheræ: the style is very short, and terminated by three reflected stigmata: the germen becomes a triangular seed, with membranous margins of a reddish colour. It is a native of Tartary in Asia.

It was not until the year 1732 that naturalists became acquainted with any plant which seemed to afford the Rhabarbarum Officinale,^a when some plants, received from Russia by Jussieu at Paris, and Rand at Chelsea,^b were said to supply this important desideratum, and as such were adopted by Linnæus, in his first edition of the Species Plantarum, under the name of Rheum Rhabarbarum. This however was not very generally received as the genuine Rhubarb plant; and with a view to ascertain this matter more completely, Kauw Boerhaave procured from a Tartarian rhubarb merchant the seeds of those plants, whose roots he annually sold, and which were admitted at Petersborough to be the true rhubarb: these seeds were soon propagated, and were discovered by De Gorter to produce two distinct species, viz. the R. Rhabarbarum of Linnæus, or as it has since been called R. undulatum, and another species, a specimen of which was presented to Linnæus, who declared it to be a new one, and was first mentioned in the second edition of the Sp. Plantarum in 1762, by the name of R. palmatum, (the plant we have figured). Previous to this time, De Gorter had repeatedly sent its seeds to Linnæus,^c but the young plants which they produced constantly perished; at length he obtained the fresh root, which succeeded very well at Upsal, and afterwards enabled the younger Linnæus to describe this plant^d ann. 1767. But two years antecedent to this, Dr. Hope's account of the Rheum palmatum, as it grew in the botanic garden near Edinburgh, had been read before the Royal Society at London; and of the great estimation in which this plant was held by him, we have the following proof: "From the perfect similarity of this root with the best foreign rhubarb in taste, smell, colour, and purgative qualities, we

^a The Rheum Rhaponticum of Linnæus, or Rhaponticum folio Lapathi majoris glabro of C. Bauhin, is generally supposed to be the Rhabarbarum of the ancients; "Alpinus aliqui putant esse Pæ vel P̄̄̄or veterum, cuius radicem usurparunt. (Vide Dioscorid. Mat. Med. lib. 3. cap. 2.) Ipse Alpinus sibi circa annum 1610, stirpem ex Thracia procuravit, et hæc Patavio Venetiam primo, dein inde in Angliam ad Parkinsonium (Theat. Bot. p. 157.) pervenit." Murray Ap. Med. vol. 4. 354. It is well known that the ancient rhubarb had not the purgative power of the modern.

^b Seeds of this species were also sent to Miller from Boerhaave at Leyden, by the title of "Rhabarbarum verum Chinense." See his Gard. Diet.

^c See the letters between De Gorter and Linnæus, by Nozeman, in *Verhandelingen van het Genootschap te Rotterdam*, vol. 1. p. 455, and cited by Murray.

^d Vide Plant. rarior. hort. Upsal. fasc. 1.

cannot doubt of our being at last possessed of the plant which produces the true rhubarb, and may reasonably entertain the agreeable expectations of its proving a very important acquisition to Britain."^e But from the relation we have given, it appears that the seeds of both *R. undulatum* and *R. palmatum*, were transmitted to Petersborough, as those of the true Rhubarb: we are therefore to conclude, that the former species has an equal claim to this importance with the latter;† and from further enquiries made in Russia, there is the best authority for believing that the *R. compactum* also affords this very useful drug.^f The seeds of the *Rheum Palmatum* were first introduced into Britain in 1762,* by Dr. Mounsey, (who sent them from Russia) and were supposed to be a part of those already mentioned; and since their prosperous cultivation by the late Professor of Botany at Edinburgh, the propagation of this plant has been gradually extended to most of our English gardens, and with a degree of success which promises in time to supersede the importation of the foreign root.^g

^e See *Philosop. Trans.* for the year 1765.

† Bergius says, " *Rheum palmatum* producit *Rhabarbarum* in officinis *Sibiricum* appellatum; certe e seminibus a Bucharis e montosis Tibeti in Russiam apportatis, & postea satis hocce *Rheum palmatum* enatum est." (Vide Pallas *Reise*, &c. vol. 3. p. 157) " *Rhabarbarum* vero *Chinense* ex alia specie *Rhei* desumptum esse videtur.". (Vide Georgi *Reise*, &c. vol. 1. p. 211.)

^f The roots of the *Rheum Palmatum* were considered to be the best rhubarb, " donec viri celeberrimi, Pallas et Georgi, qui nuperime in rem naturalem Russiæ itineribus suis inquisiverunt, scrupulos novos excitarent. Nam percontanti ill. Pallas Bucchari, folia *Rhei palmati* sibi ignota declararunt, describentes contra ea folia veri *Rhabarbari* rotunda et in margine paucis modo incisionibus notata; unde concludit iste *Rheum compactum* potius fuisse intellectum. Huc pertinent supra ex cl. Georgi itinerario dicta (V. p. 360) de Cosacco quodam, qui *Rheum undulatum* pro vera specie significavit. Uterque etiam arbitratur, *Rheum undulatum* in montibus australioribus apertioribus et siccioribus, quales Tibetici sunt, præstantiorem posse radicem ferre quam montes frigidi et humidi *Sibiriae*." Murray l. c. Pallas *Reise*, vol. 3. p. 156. Georgi *Reise*, vol. 1. p. 210. The seeds of the *compactum* were sent to Miller " from Petersborough, for the true Tartarian rhubarb, and were gathered from the plants growing on the spot, where the rhubarb was taken up; and upon trial of the roots, they are found to be as good as the foreign rhubarb." See his Diet. 6th edition.

* In the Hort. Kew. this plant is said to have been first cultivated in England by Miller in 1768.

^g The Society for Encouragement of Arts, Manufactures, and Commerce, has laudably contributed to this national object, of which their Transactions published bear sufficient evidence.

Two sorts of rhubarb roots are usually imported into this country for medical use, viz. The Chinese,[†] and the Turkey rhubarb;^h the first is in oblong pieces, flattish on one side, and convex on the other; compact, hard, heavy, internally of a dull red colour, variegated with yellow and white, and when recently powdered appears yellow, but on being kept becomes gradually redder. The second is the most valuable, and is brought to us in roundish pieces, with a large hole through the middle of each; it is more soft and friable than the former sort, and exhibits, when broken, many streaks of a bright red colour. “The marks of the goodness of rhubarb are, the liveliness of its colour when cut; its being firm and solid, but not flinty or hard; its being easily pulverable, and appearing when powdered of a fine bright yellow colour; its imparting to the spittle, on being chewed, a deep saffron tinge, and not proving slimy or mucilaginous in the mouth; its taste is subacid, bitterish, and somewhat styptic; the smell lightly aromatic.”

The purgative qualities of rhubarb are extracted more perfectly by water than by rectified spirit: the root remaining after the action of water is almost if not wholly inactive; whereas after repeated digestion in spirit, it proves still very considerably purgative. The virtue of the watery infusion, on being inspissated by a gentle heat, is so much diminished, that a dram of the extract is said to have scarcely any greater effect than a scruple of the root in substance;

[†] Colitur hoc a Chinensibus, præcipue in provincia Xensi sub nomine *Taihoang*. Bergius, M. M. p. 332.

^h “Olim, quum commercium in orientalibus regionibus per Natoliam fieret, Rhabarbarum ex portibus Turcicis ad Europæas transferebatur, unde nomen Rhabarbari Turcici.” Murray, l. c. Mr. Bell (in his *Travels from St. Petersburg to divers parts of Asia*) says, that the best rhubarb grows plentifully on a long chain of mountains in Tartary, which extend from Selin to the lake Koko-nor near Tibet. At a proper age the roots are taken up, which, according to Pallas, is in April or May; but in Bell’s account, this is said to be done in the autumn: they are then to be cleaned, the smaller branches cut off, and the larger roots divided into pieces of a proper size; after this they are perforated, and suspended to dry either upon the neighbouring trees, or in tents, or as some have reported, to the horns of sheep. The proper exsiccation of this root is certainly attended with considerable difficulty, and the cultivators of rhubarb in this country have not yet agreed in what mode this is to be best accomplished. The recent root in this process, according to the experiment of Sir William Fordyce, loses nearly nine-tenths of its weight.” See *Trans. of the Society for Encouragement of Arts, &c.*

the spirituous tincture loses less ; half a dram of this extract proving moderately purgative. " The qualities of this root are that of a " gentle purgative, and so gentle that it is often inconvenient by " reason of the bulk of the dose required, which in adults must be " from half a dram to a dram. When given in a large dose, it will " occasion some griping, as other purgatives do ; but it is hardly " ever heating to the system, or shews the other effects of the more " drastic purgatives. The purgative quality is accompanied with a " bitterness, which is often useful in restoring the tone of the sto- " mach when it has been lost ; and for the most part its bitterness " makes it sit better on the stomach than many other purgatives do. " Its operation joins well with that of neutral laxatives ; and both toge- " ther operate in a lesser dose than either of them would do singly.

" Some degree of stipticity is always evident in this medicine, and " as this quality acts when that of the purgative has ceased, so in " cases of diarrhoea, when any evacuation is proper, rhubarb has " been considered as the most proper means to be employed. I must " however remark here, that in many cases of diarrhoea, no further " evacuation than what is occasioned by the disease is necessary or " proper.—The use of rhubarb in substance for keeping the belly " regular, for which it is frequently employed, is by no means pro- " per, as the astringent quality is ready to undo what the purgative " had done ; but I have found that the purpose mentioned may be " obtained by it, if the rhubarb is chewed in the mouth, and no " more is swallowed than what the saliva has dissolved. And I must " remark in this way employed it is very useful to dyspeptic persons. " Analogous to this, is the use of rhubarb in a solution, in which it " appears to me, that the astringent quality is not so largely extracted " as to operate so powerfully as when the rhubarb was employed in " substance." *

The officinal preparations of this drug are, a watery and a vinous infusion, a simple and a compound tincture. It is also an ingredient in different compositions, as the Elixir ex aloe et rheo, pilulae stomachicæ, and some others.

* We have transcribed this account from Dr. Cullen, who has paid more than usual attention to this article. See *Mat. Med.* vol. 2. p. 529.

GRATIOLA OFFICINALIS. HEDGE-HYSSOP.

SYNONYMA. Gratiola. *Pharm. Lond.* & *Edinb.* *Gerard.*
Emac. p. 581. *Raii Hist.* p. 1885. *Dodon. Pempt.* p. 358.
Hal. Stirp. Helv. n. 329. Gratiola, Gratia Dei. *Lob. Hist.* p. 238.
Chab. p. 475. Gratiola centauroides. *Baub. Pin.* p. 279. Gra-
tiola vulgaris. *Park. Theat.* p. 220. Gratiola officinalis. *Flor.*
Dan. t. 363.

Class Diandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 29.

Eff. Gen. Ch. *Cor.* irregularis, resupinata. *Stamina* 2 sterilia. *Caps.*
2-locularis. *Cal.* 7-phyllus: 2 exterioribus patulis.

Sph. Ch. *G.* foliis lanceolatis ferratis, floribus pedunculatis.

THE root is perennial, cylindrical, white, jointed, and furnished with many slender fibres: the stalk is simple, erect, round, thick, and rises nearly a foot in height: the leaves are lance-shaped, long, pointed, serrated towards the extremities, and stand in pairs, without footstalks: the flowers proceed from the base of the leaves, and appear in June and August; they are tubular, and divided at the limb into four obtuse irregular segments, of a pale purple colour: the tube is yellow, and intermixed with reddish streaks: the peduncles are slender, of a red colour, and support a single flower: the calyx consists of five or six elliptical pointed segments: the filaments are four, two of which only are furnished with antheræ: the style is tapering, straight, with a divided stigma: the germen becomes an oval pointed capsule, separated into two cells, which contain many small seeds. It is a native of the South of Europe, and grows usually in wet meadows.

Kostrzewski, who wrote professedly upon the virtues of this plant,^a supposes Matthiolus to be the first botanist by whom it is

^a *Diff. de Gratiola, Viennæ,* 1775. Vide page 8.

mentioned;



Gratiola officinalis

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mentioned ; and the first account of its cultivation in Britain is that given by Turner in 1568 :^b and it now has a place in most of our botanical gardens. It has a strong bitter nauseous taste, but little or no odour ; and its virtues are extracted more perfectly by aqueous than by spirituous menstrua.

It has been observed, that Gratiola resembles Digitalis both in the shape of its flowers, and in its medicinal effects ; and hence it has been called Digitalis minima. It is certainly a powerful and active cathartic, and operates with such violence upon the stomach, as generally to induce vomiting ;^c and on this account it is thought by Chomel to be a medicine adapted only to the more vigorous and robust constitutions.^d Many others, however, recommend the Gratiola as a perfectly safe and useful purgative, declaring their repeated experience of its efficacy, without ever observing any bad consequence to follow its use. But as it is very uncertain in its effects, the employment of this medicine requires the precaution of a gradual increase of its dose. This plant has commonly been used in hydropical diseases ; and in moderate doses it is said not only to act as a hydragogue, but also to manifest a diuretic character ;^e and instances of its good effects in ascites and anasarca, are related by many respectable practical writers.^f Gesner and Bergius found a scruple of the powder a sufficient dose, as in this quantity it frequently excited nausea or vomiting ; others have given it to half a dram, two scruples, a dram, and even more.^g

^b Turn. Herb. cited in the Hort. Kew.

^c Vide Conr. Gesner. *Epiſt. Med. Lib. 3.* Dodon. *Pempt. p. 361.* Boerhaave *Hift. Pl. Hort. L. B.* Bergius *Mat. Med. p. 26.* These observations apply to this plant both in its recent and dried state.

^d *Usuell. t. 1. p. 48.* ^e Succus nimirum expressus et inspissatus ad dosin 24 vel 30 granorum blande purgat absque vomitu, sed lotium efficaciter pellit. Extractum verò ex residuo post expressionem aqua erutum et amarius est, et eadem dosi violentius purgat Boulduc. *Mem. de l' Acad. R. d. Sc. 1705. p. 189.* Vide Murray, *Ap. Med. vol. 2. p. 200.*

^f Heurn. *Prax. Med. p. 332.* Camerar. *Hort. Med. &c. p. 69.* Ettmul. *Oper. tom. 1. p. 716.* Heluich. *Misc. Nat. Cur. Dec. 3. A. 5. et 6 obs. 67. p. 133.* Joel. *Oper. Med. tom. 4. lib. 4.* Hartm. *Oper. Med. Chym. p. 60.*

^g Chomel gave half a dram, Hermann two scruples. Many employed the fresh plant in decoction with the addition of cinnamon, mace, ginger, aniseeds, liquorice, &c. See Geoffroy (M. M.) and others.

An extract of the root of this plant is said to be more efficacious than the plant itself, and exhibited in the dose of half a dram or a dram in dysenteries, produces the best effects.^h We are likewise told by Kostrzewski,ⁱ that in the Hospitals at Vienna, three maniacal patients were perfectly recovered by its use; and in the most confirmed cases of lues venerea it effected a compleat cure: it usually acted by increasing the urinary, cutaneous, or salivary discharges.

^h Boulduc l. c. Kramer *Tent. Bot.* p. 18. where it is said to have similar effects to those of ipecacuanha.

ⁱ *Diff. cit.* p. 64.

SISYMBRIUM NASTURTIUM. WATER-CRESSES.

SYNONYMA. *Nasturtium aquaticum.* *Pharm. Lond.* & *Edinb.*
Nasturtium aquaticum supinum. *Baub. Pin.* p. 105. *Nasturtium aquaticum,* sive *Cratevæ Sium.* *Gerard. Emac.* p. 257. *Sifymbrium Cardamine* sive *N. aquaticum.* *J. Baub. Hist. vol. 2.* p. 884. *N. aquaticum vulgare.* *Raii Hist.* 816. *Synop.* p. 300. *Park. Theat.* p. 1239. *Sifymbrium foliis pinnatis, pinnis subrotundis, brevibus racemis.* *Hal. Stirp. Helv.* n. 482. *Sifymbrium Nasturtium.* *Withering. Bot. Arrang.* p. 690. *Flor. Dan.* t. 690. *Curt. Flor. Lond.* Καρδαμων f. Σιρον *Dioscorid.*

Class Tetrodynamia. *Ord.* Siliquosa. *Lin. Gen. Plant.* 813.

Eff. Gen. Ch. *Siliqua dehiscens valvulis rectiusculis.* *Calyx patens.*
Corolla patens.

Sp. Ch. *S. filiquis declinatis, foliis pinnatis: foliolis subcordatis.*

THE root is biennial, long, creeping, and beset with several close tufts of long slender fibres: the stalks are thick, branched, and frequently rise above a foot high: the leaves are pinnated, and consist of two or three pair of irregular oblong pinnæ, and terminated by an



Sinymbrium . *Vasturicum*

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an odd one, which is the largest: the flowers are disposed in short terminal spikes, and appear in June and July: the corolla consists of four petals, which at their extremities are roundish, spreading, and of a white colour: the calyx is of four oval leaflets, which commonly fall off by the expansion of the flower: the stamens are six, four long and two short, and furnished with simple antheræ: the style is short, with an obtuse stigma: the germen is long, slender, and becomes a crooked pod, which contains small round seeds. It is a native of Britain, and grows commonly in brooks and stagnant waters.

“ The leaves of the Water-cresses have a moderately pungent taste, emit a quick penetrating smell, like that of mustard-seed, but much weaker. Their pungent matter is taken up both by watery and spirituous menstrua, and accompanies the aqueous juice, which issues copiously upon expression: it is very volatile so as to arise,^a in great part, in distillation, with rectified spirit, as well as with water, and almost totally to exhale in drying the leaves, or inspissating by the gentlest heat to the consistence of an extract, either the expressed juice, or the watery or spirituous tinctures. Both the inspissated juice, and the watery extract, discover to the taste a saline impregnation, and in keeping throw up crystalline efflorescences to the surface. On distilling considerable quantities of the herb with water, a small proportion of a subtle volatile very pungent oil is obtained.”^b

Water-cresses obtain a place in the *Materia Medica* for their anti-scorbutic qualities, which have been long very generally acknowledged by physicians. They are also supposed to purify the blood and humours, and to open visceral obstructions;^c they are nearly allied to scurvy-grass, but are more mild and pleasant, and for this reason are frequently eaten as salad. In the *pharmacopœias* the juice of this plant is directed with that of scurvy-grass and Seville oranges; and Dr. Cullen has remarked, that the addition of acids renders the juices of the plantæ siliquofæ more certainly effectual, by determining them more powerfully to an acescent fermentation.^d

^a This volatile matter has been erroneously attributed to an alkaline or alkalescent quality of the plant.

^b Lewis Mat. Med.

^c Hoffman and Haller thought highly of its powers in this way.

^d Mat. Med.

POLYPODIUM FILIX MAS. MALE POLYPODY, Or,
COMMON MALE FERN.

S Y N O N Y M A. Filix. *Pharm. Lond.* & *Edinb.* Filix non ramosa dentata. *Baub. Pin.* p. 358. Filix vulgò mas dicta, sive non ramosa. *J. Baub. Hist.* vol. iii. p. 737. Filix mas non ramosa pinnulis latis densis minutim dentatis. *Gerard. Emac.* p. 1129. Filix mas vulgaris. *Park. Theat.* p. 1036. *Raii Hist.* p. 143. *Synop.* p. 120. Polypodium, pinnis pinnatis, obtusis, dentatis. *Hal. Stirp. Helv.* n. 1701. *Bolton. Filices. Brit.* p. 44. Creditur esse πρεξις *Dioscorid.* et *Theophr.*

Class Cryptogamia. *Ord.* Filices. *Lin. Gen. Plant.* 1179.

Eff. Gen. Ch. *Fructific.* in punctis subrotundis sparsis per discum frondis.

Sp. Ch. P. frondibus bipinnatis: pinnis obtusis crenulatis, stipite paleaceo.

THE root is large, long, firm, and covered with thick brown scales, placed in an imbricated order, and furnished with many long black tough fibres: the general leaves are from one to four feet in length, the ribs of which when young are thickly beset with brown tough transparent scales: the figure of the whole leaf is lance-shaped, broadest in the middle, and gradually decreases to each extremity, terminating above in an acute point; the partial, or second leaves, are from fifteen to forty pairs, remote on the lower part, growing gradually nearer upwards, and running together at the top: the lobes are from seven to fifteen pairs, which are largest at the bottom, and regularly decrease towards the top, where they unite into a point; each lobe is of an oval shape, and a little indented at its upper extremity: the seed-vessels are placed in two rows on the back of the lobes, in number from three to six, of a kidney-shape, and covered with a pellicle; they are at first white, and afterwards change to a bluish



Polypodium filix-mas

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bluish or ash-colour ; when the seeds are ripe, the pellicle bursts, and after the discharge of the seeds the vessels become brown, and appear as if covered with dust. It is a native of Britain, and grows about the borders of woods near rivulets, and in stony rocky places.

The root of the male fern has lately been greatly celebrated for its effects upon the tape-worm, or *Tænia lata*, of Linnaeus ; and this vermifuge power of fern-root seems to have been known to the ancients ;^a and is since commended by different practical writers.^b Yet notwithstanding the virtues of this root are thus recorded, its use was very generally neglected till some years ago. Madame Noufer, a surgeon's widow, in Switzerland, acquired great celebrity, by employing a secret remedy as a specific in the cure of the tape-worm. This secret was thought of such importance by some of the principal physicians in Paris,^c who were deputed to make a complete trial of its efficacy, that it was purchased by the French king, and afterwards published by his order.^d The method of cure has been stated as follows : After the patient has been prepared by an emollient clyster, and a supper of panada, with butter and salt, he is directed to take in the morning, while in bed, a dose of two or three drams of the powdered root of male fern. (The dose for infants is one dram.) The powder must be washed down with a draught of water, and two hours after a strong cathartic, composed of calomel and scammony, is to be given, proportioned to the strength of the patient. If this does not operate in due time, it is to be followed by a dose of purging salts, and if the worm be not expelled in a few hours, this process is to be repeated at proper intervals. Of the success of this, or a similar mode of treatment, in cases of *tænia*, there can be no doubt, as many proofs of it in this country afford sufficient testimony ;^e but whether the fern root or the strong cathartic is the principal agent in the

^a *Dioscorid.* M. M. lib. 4. cap. 186. *Theophrast.* Hist. Plant. lib. 9. *Galen de Simp. Med.* lib. 8. *Pliny.* lib. 28. cap. 9.

^b *F. Hoffman*, and others.

^c *Lassone*, *Macquer*, *De La Motte*, *Jussieu*, *Carburi*, and *Cadet*.

^d *Précis du Traitement contre le Tænias ou Vers solitaires, pratiqué à Morat en Suisse, examiné et apprové à Paris.* Publié par ordre du Roi ; à Paris, 1775.

^e See Dr. Simmons's " Account of the *Tænia*," &c.

destruction.

destruction of the worm, may admit of a question, and the latter opinion we believe is the more generally adopted by physicians.^f It appears, however, from some experiments made in Germany, that the tænia has in several instances been expelled by the repeated exhibition of the root, without the assistance of any purgative.^g

^f Dr. Cullen has published this opinion. See Mat. Med. art. Filix. See also Dr. Simmons's l. c. pref. p. 7.

^g Vide C. C. Gmelin. *Consid. gen. filicum.* p. 34. Wendt. *Nachricht vom. clin. Inst zu Erlangen, Penf. 5. et 6.* p. 44. 46.

ANGELICA ARCHANGELICA. GARDEN ANGELICA.

SYNONYMA. Angelica. *Pharm. Lond.* & *Edinb.* Angelica sativa. *Baub. Pin.* p. 155. *J. Baub. Hist.* vol. iii. p. 140. *Gerard. Emac.* p. 999. *Park. Theat.* p. 939. *Raii Hist.* p. 434. *Synop.* p. 208. Angelica foliis duplicato-pinnatis, ovato-lanceolatis serratis. *Hal. Stirp. Helv.* n. 807. *Flor. Dan.* t. 206.

Class Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 138.

Eff. Gen. Ch. *Fructus* subrotundus, angulatus, solidus, *stylis* reflexis. *Corollæ æquales:* petalis incurvatis.

Sp. Ch. A. foliorum impari lobato.

THE root is biennial, long, thick, and furnished with numerous fibres: the stalk is thick, strong, jointed, channelled, round, of a purplish colour, rises to the height of six or eight feet, and sends off several branches, which terminate in large umbels: the leaves are pinnated, large, numerous, consisting of several pairs of oval, serrated, pointed, veined, irregular shaped lobes or pinnæ, terminated by an odd one: the flowers grow in large terminal umbels, which are



A. Archangelica

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are round, and composed of many radii: the corolla is small, white, and divided into five petals, which have their points turned inwards: the general involucrum consists of three or five narrow pointed leaves, the partial involucrum of five, and the calyx is cut into five minute segments; the five stamina are longer than the petals, spreading, and furnished with roundish antheræ: the germen is placed below the corolla, and supports two reflected styles, crowned with obtuse stigmata: the seeds are two, oval, flat on one side, convex on the other, and marked with three furrows.—It is a native of Lapland,^a and flowers in June and August.

Angelica, as a native of a northern climate, seems to have been unknown to the ancients. It has been cultivated in Britain more than two centuries,^b and its medical character^c has rendered it of sufficient importance to be very generally propagated by the English gardener.—The roots of Angelica have a fragrant agreeable smell, and a bitterish pungent taste: on being chewed they are first sweetish, afterwards acrid, and leave a glowing heat in the mouth and fauces, which continues for some time. The stalk, leaves, and seeds, which are also directed in the Pharmacopœias, appear to possess the same qualities, though in an inferior degree. It is said that “on wounding the fresh root early in the spring, it yields from the inner part of the bark an unctuous yellowish odorous juice, which gently exsiccated retains its fragrance, and proves an elegant aromatic gummy resin. On cutting the dry root longitudinally, the resinous matter, in which the virtue and flavour of Angelica resides, appears concreted in little veins.”^d Rectified spirit extracts the whole of the virtues of the root; water but very little; and in distillation with the latter, a small portion of very pungent essential oil may be obtained.

We are told by Linnæus, that the Laplanders entertain a high opinion of the utility of Angelica, and employ it both as food and as a medicine^e; and since Aromatic plants are rarely inhabitants of the Polar regions, their partiality for Angelica is extremely natural: and

^a “ Ubique per omnes alpes Lapponiæ juxta rivulos vulgaris est.” Lin. Flor. Lap. p. 67.

^b Cultivated in 1568. Turn. herb. part. 3. p. 5. Vide Hort. Kew.

^c We may also add its use in confectionary.

^d Lewis Mat. Med. p. 59.

^e Flor. Lap. a. c.

from the enumeration of the virtues of this plant by Bergius,¹ we should also suspect him of being influenced by the same physical cause. Angelica must however be allowed to possess aromatic, and what are called carminative, powers, and is used accordingly in the *tinctura aromatica* of the Edinb. Pharm. but as many other simples surpass it in these qualities, it is seldom employed in the present practice.

¹ *Virtus*: alexiteria, stomachica, sudorifera, carminativa. It may be remarked that he says nothing of its *usus*. Mat. Med. p. 205. It was formerly recommended in female diseases. *Mensibus lochiisque obstructis, partu difficulti, suffocatione uteri; contra venena, & febres malignas.*

DORSTENIA CONTRAJERVA. CONTRAYERVA.

SYNONYMA. Contrayerva. *Pharm. Lond.* & *Edinb.* Dorstenia sphondylii folio, dentariæ radice. *Plum. ic. p. 109. tab. 119.* *Jacquin coll. vol. iii.* *Auctorum sequentium synonyma ad nostram plantam satis clarè referri nequeunt.* Drakena radix. *Clus. Exot.* p. 83. *J. Baub. Hist. vol. ii. p. 740.* Gerard. *Emac.* p. 1621. *Raii Hist.* p. 1339. Contrayerva Hispanorum sive Drakena radix. Park. *Theat.* p. 421. *Pro matre radicis contrayervæ in medicina vulgo usitatæ, ex vivis speciminiibus cl.* Houstoun duas dorsteniæ species descriptis, 1° Dorstenia Dentariæ radice, sphondylii folio, placenta ovali, 2° Dorstenia Dentariæ radice, folio minus laciniato, placenta quadrangulari et undulata. (*Phil. Transf.* vol. 37. p. 196 & 197) Vel Dorstenia Drakena, et D. Houstoni. *Lin. Syst. Veg.*

Class Tetrandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 158.

Eff. Gen. Ch. *Receptac.* commune 1-phylum, carnosum, in quo semina nidulantur.

Sp. Ch. D. scapis radicatis, fol. pinnatifido-palmatis ferratis, receptaculis quadrangulis.



Dorstenia Contrajerva

THE root is perennial, tapering, unequal, compact, rugose, externally brown, internally whitish, and furnished with numerous fibres: the leaves are various, of an irregular shape, lobed, serrated, or rather dentated, pointed, veined, and placed upon long radical footstalks, which are winged towards the leaves: the scapi, or flower-stems, are round, rough, simple, rise several inches in height, and each supports an irregular quadrangular receptacle, which contains the necessary parts of fructification: the flowers on examination were discovered to be distinctly male and female, immersed in the common receptacle, and occupying the whole of its disc; the former consisted but of two slender short filaments, with yellow antheræ; † the latter of a roundish germen, supporting a simple style, terminated by an obtuse stigma: the capsule, when ripe, possesses an elastic power, by which the seed is thrown out with considerable force.^a—It is a native of South America and some of the West India islands.‡

This plant is extremely scarce in Europe: the annexed figure of it was taken from a plant now in the Royal garden at Kew, where it was lately introduced, and is, we believe, the first of this kind that ever grew in England.^b It does not sufficiently appear from what authority Linnæus gives the Dorstenia Contrajervæ. The London College has however adopted it in the list of the Mat. Med. and in compliance with this we have figured the plant; at the same time we must acknowledge, that, upon the faith of Dr. Houston, who examined the Contrayervæ plants in their native soil,^c we should otherwise have had no doubt in referring the officinal radix contrayervæ to the species he has described, as has been done by Bergius^d and Murray.^e But as Houston has observed, that the roots of different species of Dorstenia are promiscuously gathered and exported for those of the Contrayervæ; and as all the species bear a great resemblance to each

† This plant cannot therefore be properly said to belong to the class *tetrandria*.

^a Vide Jacquin. l. c.

‡ Jacquin found it growing on the island of Martinico. Vide l. c.

^b We do not find any species of the Dorstenia mentioned in the *Hort. Kew.* lately published.

^c The first species on the high ground near Old Vera Cruz; and the second on the high rocky ground about Campechy in the year 1730. *Phil. Transf. vol. 37. p. 197.*

^d *Mat. Med. p. 73.*

^e *App. Med. vol. 4. p. 572.*

other,

other, we conceive the further discussion of this subject to be of no material consequence. Nich. Monardus,^f almost two centuries ago, first makes mention of the plant called Contrayerva; and as this name is of Spanish origin, signifying an antidote to poison, it might apply to any other plant supposed to possess this power. We are told by Clusius, that he received from Sir Francis Drake some roots which were brought from Peru, where they were highly valued, and reported to counteract the effects of every kind of poison, of which the leaves of the same plant were said to be one. This root, in compliment to the circumnavigator, he named Drakena radix, and is generally thought by botanists to be that of Contrayerva. The generic name, Dorstenia, was first used by Plumier,^g and afterwards by Linnaeus, who makes four species of this genus.

The root of Contrayerva has a peculiar kind of aromatic smell, and a light astringent warm bitterish taste, and on being long chewed it discovers somewhat of a sweetish sharpness. According to Lewis, "Contrayerva root gives out its virtue, by the assistance of heat, both to water and rectified spirit, and tinges the former of a dark brownish red, the latter of a brighter reddish colour: the watery decoction is very mucilaginous, so as not to pass through a filter."^h

The antipoisonous virtues formerly attributed to this root, have been long very justly exploded as entirely chimerical, so that it is now merely employed as a diaphoretic of a moderately stimulant kind, being possessed of less pungency than any other of those medicines usually denominated alexipharmac. Putrid and nervous fevers are the diseases in which Contrayerva is chiefly used, conformably to the practice of Huxham and Pringle, whose works are well known to all our medical readers.

^f Vide Clusius *Exot.* p. 311. ^g *Nov. gen. plant.* ^h Lewis *Mat. Med.*



Styloscyamus niger.

Published by Dr. Woodville Nov. 1. 1790.

HYOSCYAMUS NIGER.

BLACK HENBANE.

SYNONYMA. *Hyoscyamus.* *Pharm. Edinb.* *Hyoscyamus vulgaris et niger.* *Baub. Pin.* p. 169. *Hyoscyamus niger.* *Gerard Emac.* p. 353. *Hyoscyamus vulgaris.* *J. Baub.* iii. 627. *Raii Hist.* p. 711. *Synop.* p. 274. *Park. Theat.* p. 362. *Hyoscyamus.* *Hal. Stirp. Helv.* n. 580. *Stoerck Libel. de Stramonio,* &c. *Withering. Bot. Arrang.* p. 231.

Class Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 247.

Efl. Gen. Ch. *Cor.* infundibul. obtusa. *Stam.* inclinata. *Caps.* operculata, 2-locularis.

Sp. Ch. *H.* foliis amplexicaulibus sinuatis, floribus sessilibus.

THE root is biennial, long, compact, white, and beset with many fibres: the stalk is erect, round, woody, branched, and rises about two feet in height: the leaves are large, cut into irregular lobes or pointed segments, of a sea-green colour, undulated, woolly, and at their bases embrace the stem: the flowers are produced in irregular clusters at the tops of the branches; they are funnel-shaped, consisting of a short tube, with an expanded limb, which is divided into five obtuse segments, of an obscure yellow colour, and beautifully painted with many purple veins: the calyx is divided into five short pointed downy segments: the five filaments are tapering, downy at the base, inserted in the tube of the corolla, and furnished with large oblong antheræ: the germen is roundish: the style slender, longer than the stamina, and terminated by a blunt stigma: the capsule is oval, marked with a line on each side, and divided into two cells, which contain many small irregular brown seeds. It is a native of England, and grows commonly amongst rubbish, about villages, road sides, &c. and flowers in June.

No. II.

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"The smell of *Hyoscyamus* is strong and peculiar, and the leaves, when bruised, emit somewhat of the odour of tobacco. This smell is still stronger when the leaves are burnt; and on burning they sparkle with a deflagration, somewhat resembling that of nitre, but to the taste they are mild, and mucilaginous." Henbane is a powerful narcotic poison,^a and many instances of its deleterious effects are recorded by different authors;^b from which it appears that any part of the plant, when taken in sufficient quantity, is capable of producing

^a Haller says, *Memini sodalem meum Simonium, cum Leide mecum, anno 1725. Boerhaavii scholas frequentarct, Aconita, Apocyna, Belladonnæ baccas impune devorasse, ab Hyoscyami vero semine vietum, nimiæ curiositatis pœnas dedisse, atque mente alienatum, alteroque latere resolutum, tamen a Praeceptore servatum fuisse. Stirp. Helv. n. 580.*

^b Out of the many instances of this kind, we shall only advert to some of them, in order to shew that the roots, seeds, and leaves of this plant, have separately produced poisonous effects. Dr. Patoullat, Physician at Toucy in France, relates (in the *Phil. Trans.* vol. 40. p. 446) that nine persons, in consequence of having eaten the roots of *Hyoscyamus*, were seized with most alarming symptoms; "some were speechless, and shewed no other signs of life than by convulsions, contortions of their limbs, and the risus sardonicus; all having their eyes starting out of their heads, and their mouths drawn backwards on both sides; others had all the symptoms alike; however five of them did now and then open their mouths, but it was to utter howlings. The madness of all these patients was so complete, and their agitations so violent, that in order to give one of them the antidote, I was obliged to employ six strong men to hold him while I was getting his teeth asunder to pour down the remedy." And what is remarkable, Dr. P. says, that on their recovery, all objects appeared to them as red as scarlet, for two or three days.—Further accounts of the effects of these roots are given by Wepfer de Cicut, &c. p. 230. Simon Pauli Quadr. p. 384. Blom, in *Vet. Ac. Handl.* 1774. p. 52. —Respecting the seeds of Henbane, we have an account given by Sir Hans Sloane, (in the *Phil. Trans.* vol. 38. p. 99.) of four children who ate them by mistaking the capsules, in which they were contained, for filberts. "The symptoms that appeared in all the four were great thirst, swimmings of the head, dimness of sight, ravings, profound sleep, which last in one of the children continued two days and nights." See also *Essays and Observations, phys. & lit.* vol. 2. p. 243. *Helmont. Ort. Med.* p. 306. *Ephemer. Germ. annis 7 & 8. &c.* —The leaves of *Hyoscyamus*, we are told, were boiled in broth, and eaten by seven persons, (five men and two women) who soon became affected with symptoms of intoxication. Dr. Stedman says, "I saw them about three hours after having eat it; and then three of the men were become quite insensible, did not know their comrades, talked incoherently, and were in as high a delirium as people in the rage of a fever. All of them had low irregular pulses, slavered, and frequently changed colour: their eyes looked fiery, and they catched at whatever lay next them, calling out that it was going to fall." *Phil. Trans.* vol. 47. an. 1750.

For additional facts, see *Haller l. c. Spielmanni Diff. de veget. ven. Alsat.*

Henbane is poisonous to birds and dogs; but horses, cows, goats, and swine, it does not affect.

very

very dangerous and terrible symptoms. [†] But there cannot be a doubt that this plant, like others of the same natural order, under proper management, may be safely employed, and be found in many cases to be an active and useful remedy. *Hyoscyamus* was well known to the ancients, and its effects as an anodyne were experienced by *Dioscorides*, ^c and with this intention it has been used both internally and externally by several subsequent writers, particularly by *Celsus*; ^d and in hæmorrhagic diseases, the sēm. *Hyoscyami* were successfully given by *Plater*, ^e *Forestus*, ^f and *Boyle*. ^g

It appears however that for a long time past the employment of *Henbane*, in the practice of medicine, was wholly laid aside till *Baron Stoerck* published several cases of different diseases, in which an extract, prepared from the juice of this plant, had been discovered to be an efficacious remedy. ^h These diseases are stated by the Baron to be internal spasms and convulsions, palpitations of the heart, madness, melancholy, epilepsy, inveterate head-aches, hæmoptysis; and a troublesome cough, which accompanied the last-mentioned complaint, was completely appeased by the repeated use of the extract, which in several disorders was often found to produce sleep more powerfully than opium. The success of *Hyoscyamus* in these cases, (many of which were said to be of long duration, and to have resisted the effects of other remedies) is also confirmed by *Collin*, who extended the dose of the Extract. *Hyoscyami*, to twenty-four or thirty grains per diem. ⁱ But from the experiments made of this medicine by *Greeding*, who tried it in forty cases of melancholia, mania, and epilepsy, the result was very different: ^k yet while his practice shews that no benefit is to be expected in these three diseases, it tends to prove that this medicine is a useful anodyne; and as it usually opens the

[†] Vires emollientes, & narcoticas, classis suæ potentissimas possidet, ut etiam magis, quam reliquæ, mentem emovere videatur, & deliria furiosa, rixosaque ciere, unde olim nomen gessit alterci. Ea deliria aliquando fugacia sunt, & temulentæ similia; alias diutius durant; & denique in mortem transiunt. Alias *Hyoscyamus* hominem in stuporem conjicit. Sed & sopores facit, & vertigines, convulsiones, risusque sardonios, & inflationes, strangulationes, ardorem faucium, frigus extremorum. Si alvum duxit, a resolutione aliqua toni id videtur factum fuisse. *Haller l. c.*

^c Lib. 4. c. 69. ^d Lib. 5. c. 25. ^e Prax. Med. p. 635. ^f Observat. lib. 16. ^g Usefulness of Nat. Phil. part 2. ^h Lib. de Stram. *Hyoscyam.* &c. ⁱ Observ. Tom. 2. p. 142. ^k Vide Ludw. Advers. Med. pr. Vol. i. P. i. p. 71, & sq.

body, it may be advantageously substituted for opium, where the astrin-gency of the latter becomes an objection to its use. Dr. Cullen says, " that in epilepsy, and various convulsive affections, for which Baron Storck particularly recommends the extract of Henbane, we have very frequently employed it, but have never found it of any great virtue, nor of more than what we have found in opium. We have indeed found the Hyoscyamus to be often an agreeable anodyne and soporiferous medicine ; and we have frequently found it such in persons, who from particular circumstances did not agree with opium, and particularly because it was less binding to the belly than opium. We judge however that it is more ready in full doses to give delirium than opium is, and therefore we found it in many cases to give turbulent and unrefreshing sleep ; and notwithstanding its laxative qualities, for which we had employed it, we have been obliged to lay it aside."¹ Stoerck and some others recommend this extract in the dose of one grain or two ; but Dr. Cullen observes, that he seldom discovered its anodyne effects till he had proceeded to doses of eight or ten grains, and sometimes to fifteen, and even to twenty.

The leaves of Henbane are said to have been applied externally with advantage in the way of poultice, to resolve scirrhou-s tumours, and to remove some pains of the rheumatic and arthritic kind.

¹ *Mat. Med. vol. ii. p. 271.*

ALTHÆA OFFICINALIS.

MARSH-MALLOW.

S Y N O N Y M A. Althæa. *Pbarm. Lond.* & *Edinb.* Althæa
Dioscoridis et Plinii. *Baub. Pin.* p. 315. Althæa vulgaris.
Park. Theat. p. 303. *Raii Hist.* 602. *Synop.* 252. Althæa Ibiscus.
Gerard. Emac. p. 933. Althæa sive Bisnialva. *J. Baub. Hist. vol.*
ii. p. 954. Althæa tomentosa herbacea, caule erecto, foliis cordato-
lanceolatis obsolete trifidis. *Hal. Stirp. Helv.* n. 1047. Althæa
officinalis. *Flor. Dan. tab.* 530. *Withering. Bot. Arrang.* p. 735.
Αλθαια s. ιβισκος *Dioscorid.*

Class Monadelphia.



Althaea officinalis

Published by Dr. Woodville Nov. 1. 1790.

Class Monadelphia. *Ord.* Polyandria. *Lin. Gen. Plant.* 839.

Eff. Gen. Ch. *Cal.* duplex; exterior 9-sidus. *Arilli* plurimi, monospermi.

Sp. Ch. A. foliis simplicibus tomentosis.

THE root is perennial, long, tough, white, and fibrous: the stalk is upright, firm, woolly, somewhat branched towards the top, and rises to the height of three or four feet: the leaves are ovalish, or heart-shaped, commonly with a lobe on each side, pointed, irregularly serrated, covered with a soft down, and stand upon long round foot-stalks: the stipulæ are two, narrow, and placed at the base of each leaf-stalk: the flowers are large, and consist of five petals, inversely heart-shaped, indented at the apex, and of a pale purple colour: the calyx is double, the exterior consisting of nine and the interior of five narrow pointed segments: the stamina are numerous, united at the base, and terminated by kidney-shaped antheræ: the germen is orbicular: the styli cylindrical, and furnished with many long bristly stigmata: the seeds are kidney-shaped, numerous, placed in a circle, and covered with an arillus. It is a native of England, and grows commonly near the sea shore, or about salt marshes, and flowers in August.

The Althæa seems to have been known to the ancients,^a and has continued in very general officinal use by practitioners in every country where the science of medicine is regularly cultivated. "The dry roots of this plant, boiled in water, give out half their weight of a gummy matter,† which, on evaporating the aqueous fluid, forms a flavourless yellowish mucilage. The leaves afford scarcely one-fourth of their weight, and the flowers and seeds still less."^b

^a It is called Althæa, says Dioscorides δια το πολυαλθες αυτης a multiplici excellentique quam in methodo præstat utilitate. I. 3. c. 163. p. 236. Hence also vismalva & bis-malva, malvaviscus, malva-ibiscus, (Alston Lect. on the Mat. Med.) and therefore may be supposed to be the hibiscus of Virgil:—

Hædorumque gregem viridi compellere hibisco.

Ec. ii. l. 30. et Ec. x. l. 71.

[†] This is thought to be nearly allied to Gum arabic, Tragacanth, Starch, &c. and it has been found to dissolve myrrh, and some other resinous substances, more readily than the first. Buchholz Act. Nat. Cur. Tom. p. 60. Expt. 32.

^b Lewis Mat. Med. p. 40.

This gluten or mucilaginous matter with which the Althæa abounds, is the medicinal part of the plant, and is commonly employed for its emollient and demulcent qualities. Its use is recommended where the natural mucus of membranes becomes acrid or abraded; “ for obtunding and incrassating acrimonious thin fluids, in tickling coughs from defluxions on the fauces and lungs, in hoarseness, erosions of the stomach and intestines, stranguary,‡ and for lubricating and relaxing the passages in nephritic and calculous complaints.”^c Radix Althææ formerly had a place in many of the compounds in the pharmacopœias, but now it is only directed in the form of a syrup.

‡ We may here remark however, that in the opinion of Dr. Cullen these “ demulcents can have no effect as such in the mass of blood, or in passing by the various excretions.” *Mat. Med. vol. ii. p. 411.*

^c Lewis l. c.

MALVA SYLVESTRIS.

COMMON MALLOW.

SYNONYMA. Malva. *Pharm. Lond. & Edinb.* Malva sylvestris folio sinuato. *Baub. Pin.* p. 314. Malva vulgaris flore majore, folio sinuato. *J. Baub. Hist. vol. ii.* p. 949. Malva vulgaris. *Park. Theat.* p. 299. *Raii Hist.* p. 599. *Synop.* p. 251. Malva caule erecto, foliis lobatis, lobis ferratis, quinis & septenis. *Hal. Stirp. Helv. n.* 1069. Malva sylvestris. *Gerard. Emac.* 930. *Withering. Bot. Arrang.* p. 738. *Curt. Flor. Lond.*

Class Monadelphia. *Ord.* Polyandria. *Lin. Gen. Plant.* 841.

Eff. Gen. Ch. *Cal.* duplex; exterior 3-phyllus. *Arilli* plurimi, monospermi.

Sp. Ch. M. caule erecto herbaceo, fol. septemlobatis acutis, pedunculis petiolisque pilosis.

THE root is perennial, thick, long, whitish, and furnished with many strong fibres: the stem is erect, round, strong, hairy, branched, and rises from one to three feet in height: the leaves are numerous, roundish,



Malva sylvestris

Published by D. Woodville Nov. 1. 1790.

roundish, divided into five or seven lobes, unequally serrated or notched at the edges, and stand upon long round hairy footstalks: the two stipulae are placed at the base of each footstalk: the flowers are large, consisting of five petals, which are inversely heart-shaped, sinuated at the apex, and of a purple colour, painted with veins of a deeper hue, and stand upon slender peduncles, which proceed from the bottom of the leaf-stalks: the calyx is double, the outer is composed of three, and the inner of five oval pointed hairy segments: the stamina are numerous, united at the base in a cylindrical shape, above separate, bending downwards, and furnished with kidney-shaped antheræ: the germen is roundish: the style cylindrical, short, and furnished with many filiform stigmata: the seeds are numerous, of a kidney-shape, and covered with a coat, or arillus, which opens inwardly. It is common under hedges and in waste grounds, and flowers from June till September.

This plant^a has a strong affinity to the Althæa both in a botanical and in a medicinal respect; but the roots of the malva are useless, while those of althæa are of more efficacy than any other part of the plant. Accordingly we find that only the leaves and the flowers of the former are directed by the college for pharmaceutical purposes. Formerly when horticulture was little understood, and of course the choice of esculent vegetables extremely limited, the malva was admitted amongst the more common articles of diet;^b and we are told that the Chinese still eat the leaves of mallow either raw as salad, or boiled as spinage.^c

Respecting the medicinal qualities of this plant, little remains to be said after the account we have given of Althæa, as the leaves

^a "Malva quasi molva quod alvum molliat, ut inquit Festus, secundum tritum illum Schol. Salern. versiculum, dixerunt malvam veteres quia molliat alvum. Gr. μαλαχη, απο μαλασσειν, ob eandem rationem. Utrumque etymon improbat C. Hoffmann nec tamen meliora substituit." *Tournf.*

^b ————— Me pascunt olivæ

Me cichorea levesque malvæ.

Her. l. i. Od. 31.

Exoneraturas ventrem mihi villica malvas

Attulit, & varias, quas habet hortus, opes. *Martial.*

The laxative quality of this plant is also mentioned by Cicero.

Epiſtol. lib. 7. epift. 26.

^c *Mélanges intéressans et curieux.* Tom. 4. p. 28.

afford

afford a similar glutinous juice, which is fitted to answer the same purposes as those of marsh-mallow, and are therefore principally used in fomentations, cataplasms, and emollient enemas; but the internal use of these leaves seems to be wholly superseded by the radix althææ.^a

^a "Althææ in omnibus supra dictis efficacior radix." Plin. Nat. Hist. vol. 2. p. 662.

LAVANDULA SPICA. COMMON LAVENDER.

SYNONYMA. Lavendula. *Pharm. Lond. & Edinb.* Lavendula angustifolia flore cœruleo. *Baub. Pin.* p. 216. Lavendula minor sive spica. *Gerard. Emac.* p. 584. *Raii Hist.* p. 513. *Park. Theat.* p. 73. Pseudo-nardus quæ Lavendula vulgo. *J. Baub. Hist. vol. iii.* p. 282. Lavandula foliis lineribus, spicis nudis. *Hal. Stirp. Helv. n.* 232.

Varietates sunt.

- Lavandula angustifolia flore cœruleo. *Baub. Pin.* p. 216.
Narrow-leaved blue flowered common Lavender.
- β Lavandula angustifolia flore albo. *Baub. l. c.*
Narrow-leaved white flowered common Lavender.
- γ Lavandula latifolia. *Baub. l. c.*
Broad-leaved common Lavender. *Vide Aiton. Hort. Kew,*

Class Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant.* 711.

Eff. Gen. Ch. *Calyx* ovatus, subdentatus, bractea suffultus. *Corolla* refupinata. *Stamina* intra tubum.

Sp. Ch. L. foliis sessilibus lanceolato-linearibus margine revolutis, spica interrupta nuda.

THE root is perennial, thick, fibrous, and woody: the stalk is shrubby, much branched, and often rises to the height of five or six feet: the bark of the younger shoots is of a pale-green colour, but of



Pavendula Speciosa

Published by D. Wunderlin Nov 1. 1790.

of the old woody part of the stem rough and brown : the leaves are numerous, long, narrow, entire, without footstalks, of a whitish green colour : the flowers are produced in terminal spikes upon the young shoots, and are of a bright blue colour : the corolla consists of a long cylindrical tube, divided at the mouth into two lips, the uppermost of which is largest, and cut into two segments ; the lower expands downwards, and separates into three : the filaments are four, two long, and two short, inclosed within the tubular part of the corolla, and support small simple antheræ : in the place of a germen we find four naked seeds, from the center of which proceeds the style, which is slender, and furnished with a bilobated stigma. It is a native of the south of Europe, and flowers from July till September. This plant was formerly considered as a species of *Nardus*, and appears to be the *Pseudo-nardus* of *Matthiolus* and *Pliny*.

Lavender grows spontaneously in many of the southern parts of Europe ; it appears from Turner to have been cultivated in England previous to the year 1568,^a and on account of the fragrance of its flowers, it is now so commonly cultivated, that we can scarcely enter a garden in which this plant is not to be found. The fragrant smell of the flowers is well known, and to most people agreeable ; to the taste they are bitterish, warm, and somewhat pungent ; the leaves are weaker and less grateful. “ Water extracts by infusion nearly all the virtue both of the leaves and flowers. In distillation with water the leaves yield a very small portion of essential oil ; the flowers a much larger, amounting in their perfectly mature state^b to about one ounce from sixty. The oil is of a bright yellow colour, of a very pungent taste, and possesses, if carefully distilled, the fragrance of the Lavender in perfection.^c Rectified spirit extracts the virtue of Lavender more

^a Vide Aiton's *Hort. Kew.*

^b In order to obtain the largest quantity of essential oil from these and most other flowers of this kind, they should be allowed to grow to their full maturity, and be dried for some time.

^c Hence it is frequently employed as a perfume. This oil has been used for stimulating paralytic limbs, and for other external purposes. We are also told that it effectually destroys cutaneous insects, and that if soft spongy paper be dipped in this oil, and applied to the parts, it immediately kills the *pediculi inguinales*.—This oil, distilled from the broad-leaved lavender, and mixed with three-fourths of rectified spirit, or oil of turpentine, was the *Oleum spicæ*, formerly highly celebrated as an application to indolent tumours, old sprains, diseased joints, &c.

completely than water. The spirit elevates also in distillation a considerable part of the odoriferous matter of the leaves, and greatest part of that of the flowers; leaving in the inspissated extracts a moderate pungency and bitterness, with very little smell."^d

Lavender has been an officinal plant for a considerable time, though we have no certain accounts of it given by the ancients: its medicinal virtue resides in the essential oil, which is supposed to be a gentle corroborant and stimulant of the aromatic kind,^e and is recommended in nervous debilities and various affections proceeding from a want of energy in the animal functions. According to Dr. Cullen, it is, "whether externally applied or given internally, a powerful stimulant to the nervous system; and among the others of this order, named Cephalics, the Lavender has a very good and perhaps the best title to it." And he further says, "it appears to me probable, that it will seldom go further than exciting the energy of the brain to a fuller impulse of the nervous power into the nerves of the animal functions, and seldom into those of the vital. It may however be with great propriety, that Professor Murray has dissuaded its use where there is any danger from a stimulus applied to the sanguiferous system. It is however still probable, that Lavender commonly stimulates the nervous system only, and therefore may be more safe in palsy than the warmer aromatics, especially if the Lavender be not given in a spirituous menstruum, or along with heating aromatics, which however is commonly done in the case of the *spiritus lavendulæ compositus*."^f The officinal preparations of Lavender, are the essential oil, a simple spirit, and a compound tincture.

^d Lewis's Mat. Med. p. 371.

^e Bergius says, *Virtus*: nervina, resolvens, tonica, emmenagogia. *Usus*: externus. M. M. p. 513.

^f Mat. Med. vol. ii. p. 148.





Teucrium Marum

Published by D^r Woodville Dec^r 1790.

TEUCRIUM MARUM.

MARUM GERMANDER,
Or, SYRIAN HERB MASTICH.

S Y N O N Y M A. Marum Syriacum. *Pharm. Lond.* Marum Cortusi. *J. Baub. Hist.* v. iii. p. 242. Marjorana Syriaca vel Cretica. *Baub. Pin.* p. 224. Marum Syriacum vel Creticum. *Park. Theat.* p. 13. *Raii Hist.* p. 527. Chamædrys incana maritima frutescens, foliis lanceolatis. *Tourn. Inst.* p. 205. Tragoriganum Thymi latioribus foliis, subitus incanis; flore magno suave-rubente. *Pluk. Alm.* p. 374. Thymum Creticum, &c. *Breyn Prod.* ii. p. 99. C. Schreberi verticill. unilab. n. 28. et Linn. *Diff. de Maro resp.* Dahlgren. p. 7.

Class Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant.* 706.

Eff. Gen. Ch. *Corollæ* labium superius (nullum) ultra basin 2-partitum, divaricatum ubi stamina.

Sp. Ch. T. foliis integerrimis ovatis acutis petiolatis, subitus tomentosis, flor. racemosis secundis.

THE root is perennial, long, ligneous, and divides into many fibrous branches: the stalks are numerous, slender, shrubby, woolly, somewhat branched, and rise above a foot in height: the leaves are oblong, pointed, entire, and near the bottom obscurely lobed: the upper pagina is of a pale green colour; the under, white and downy; they are placed in pairs upon slender footstalks, which become gradually elongated towards the lower part of the stems: the flowers are produced in spikes, and all stand on the same side in pairs, upon short peduncles: the corolla consists of a short curved cylindrical tube, which divides at the limb into two lips; the upper lip is short, erect, and divided to the base, by which it seems lost in the under lip, which is long, of a pale purple colour, and separated into six lobes, of these the outermost are the largest: the calyx is tubular, whitish,

whitish, woolly, and cut into five short pointed segments : the filaments are two long and two short, slender, white, and furnished with simple antheræ : the german is quadrifid, and supports a slender style, with a bifid stigma : the seeds are four, of a brown colour, and lodged in the calyx, which serves the purpose of a capsule.

This little shrub flowers from July till September. It is a native of Spain, and is said to grow plentifully also in Greece, Ægypt, Crete, and Syria.

Whether this plant was known to the ancients or not, does not appear from the descriptions of Theophrastus and Dioscorides. — Cortusus^a discovered that cats are remarkably fond of Marum ;* and from this circumstance we are enabled with certainty to trace back its history to his time, for ever since it has been known by the name of Cat-thyme : there occurs however considerable difficulty in ascertaining its synonyma ; and probably some of those to which we have referred, are not sufficiently identified. It was first cultivated in England by Parkinson^b in 1640, and is now to be found in many of our gardens.

The leaves and younger branches of Marum, when recent, on being rubbed betwixt the fingers, emit a volatile aromatic ^c smell, which readily excites sneezing, but to the taste they are bitterish accompanied with a sensation of heat and acrimony. Lewis observes, that “ the Marum loses but little of its pungency on being dried, and in this respect it differs remarkably from many other acrid herbs, as those called antiscorbutic. It gives out its active matter partially to water, and completely to rectified spirit.—Distilled with the former, it yields a highly pungent, subtile, volatile essential oil, similar to that of scurvy grass, but stronger, and of less perishable pungency. Rectified spirit carries off likewise, in the inspissation of the spirituous tincture, a considerable share of the smell and pungency of the Marum, but leaves much the greatest part concentrated in the

^a See Jac. Antonii Cortusi Catalogus Horti Patavini, anno 1591, & J. Bauh. l. c.

* Cats are also known to have a similar fondness for the Nepeta Cataria, and the roots of Valeriana off.

^b Vide Aiton's *Hort. Kew.*

^c Murray says,—Ut sal volatile olfactum grato suo et camphoraceo fere aromate nares vellicant, in sternutationem usque, et per momentum temporis animum eximie erigunt. App. Med. vol. 2. p. 108.

extract; which, on being tasted, fills the mouth with a durable, penetrating, glowing warmth."^d

Judging from the sensible qualities of this plant, it may be supposed to possess very active powers, and on this consideration it is strongly recommended by Wedelius^e as an important remedy in many diseases requiring medicines of a stimulant, aromatic, and deobstruent quality; and his opinion seems in some measure to have been since verified by actual experience of its efficacy, as appears from the instances of its successful employment by Linnæus,^f Rosenstein,^g and Bergius.^h The last mentioned writer says of it, *Virtus: nervina, tonica, resolvens, emmenagogia, diuretica, errhina.* *Usus: Cachexia, Hysteria, Debilitas nervorum.*—At present however Marum is here chiefly used as an errhine, and is an ingredient in the pulvis asari compositus of the London Pharmacopœia. The dose of the powdered leaves is from a scruple to half a dram, which Murray advises to be given in wine.

^d Lewis Mat. Med. p. 412.

^e *Diff. de Maro resp.* Hermanno 1703.—Its cephalic efficacy is highly commended by Hermann (*Cynos. Mat. Med. t.m. 2. p. 349.*) and Boerhaave (*Hist. Plant. hort. L. B. p. 262.*)

^f Of these we may mention Menstrua suppressa, Apoplexy, Asthma, and various other pulmonary affections. Vide l. c.

^g Murray says, "Litteris vero ad me datis, vir. illustris prescripsit, se eadem medela b. Rosensteinio, dirissima et pertinacissima russi cum difficillima respiratione in ultimo morbo conficitato, levamen attulisse exoptatissimum." l. c.

^h He mentions the case of a lady who received a blow upon the head by falling from a carriage, which brought on a species of apoplexy, and was cured by this plant, after several other means had been tried ineffectually. M. M. p. 504.

TEUCRIUM SCORDIUM. WATER GERMANDER.

SYNONYMA. Scordium. *Pharm. Lond. & Edinb.* Gerard.
Emac. p. 661. *Baub. Pin.* p. 247. *J. Baub. Hist.* iii. p. 292.
Raii Hist. p. 576. *Synop.* p. 245. Scordium legitimum. Park.
Theat. p. 111. Chamædrys foliis mollibus, hirsutis, ellipticis,
 crenatis, verticillis paucifloris. *Hal. Stirp. Helv.* n. 288. Teucrium
 Scordium. *Withering. Bot. Arrang.* p. 591. *Flor. Dan.* 593.

Class Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant.* 706.

Eff. Gen. Ch. *Corollæ* labium superius (nullum) ultra basin 2-partitum,
 divaricatum ubi stamina.

Sp. Ch. T. foliis oblongis sessilibus dentato-ferratis, floribus geminis
 axillaribus pedunculatis, caule diffuso.

THE root is perennial, fibrous, creeping: the stems are branched, trailing, square, hairy, and more than a foot in length: the leaves are ferrated, hairy, oblong, veined, of a dusky-green colour, without footstalks, and placed in pairs: the flowers stand in verticilli or whorls of two, three, or four together, upon short peduncles, placed at the base of the leaves: the corolla is monopetalous, consisting of a short tube, which divides at the mouth into two lips, but the upper is extremely short, and cleft in the middle, and therefore appears to be wanting: the under lip is long, of a purple colour, dentated at the sides, and terminated by a large roundish expanded segment: the calyx is tubular, hairy, and cut at the extremity into five short teeth: the filaments are four, two long and two short, slender, bent, and crowned with simple antheræ: the germen divides into four parts, from the centre of which rises a slender style, furnished with a bifid stigma: the seeds are four, naked, of an irregular shape, and lodged in the bottom of the calyx. It is a native of England, in marshy situations, and flowers in July and August.

The



Teucrium Scordium

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The leaves of Scordium have a smell somewhat of the garlick kind,^a and to the taste they are bitterish, and slightly pungent. “ When moderately and newly dried they give out their smell and taste both to water and to rectified spirit. In distillation their peculiar flavour arises with water, but the impregnation of the distilled fluid is not strong, nor could any essential oil be obtained on submitting to the operation several pounds of the herb.”^b

The ancients, to whom Scordium was well known,^c attributed to it a peculiar antiseptic^d and alexiphamic power, and for many ages it had the character of being remarkably efficacious in all pestilential and putrid diseases; with a view to this, it was afterwards directed in the composition of several officinal medicines,^e supposed to be antidotes to various kinds of poisons and infections; and we are told, even at a date not very remote from the present, of its successful use in the plague, which raged in Turkey.^f But notwithstanding the Scordium was formerly considered such a celebrated remedy, and still has place in both the Pharmacopœias, yet it appears to be a very insignificant article of the Materia Medica, and is therefore very justly fallen into disuse; and in this opinion we have the authority of Dr. Cullen, who says, “ this plant has a bitter, joined with some volatile parts; but neither of these qualities is considerable enough to retain it in the present practice.”^g Bergius however states *virtus* to be antiputredinosa, tonica, diaphoretica, diuretica, resolvens;^h and some others recommend it to be employed externally in antiseptic cataplasms and fomentations.

^a From this smell it is supposed to take the name Scordium, or Σκορδόν, which signifies Garlick; and the milk of animals, which feed upon this plant, is said to acquire a similar flavour.

^b Lewis *Mat. Med.* p. 596.

^c We are far from being certain that the plant we have figured is really the Scordium of the ancients, and on this account we have not referred it to the Greek writers.

^d Of the fabulous accounts of its antiseptic powers, we may mention the following from Galen: Scriptum autem est a quibusdam viris gravissimis, cum in bello interemperitorum cadavera multos dies insepulta jacuissent, quæcunque supra scordium fortè fortuna eccliderant, multo minus aliis computruisse, ea præsertim ex parte quæ herbam contigerat. *Lib. de Antidot.* 6. cap. 12.

^e The Mithridate and Theriaca have but lately been expunged from our dispensatories; and though often experienced to be useful remedies, yet with Haller we may say, “ Sed et farragines sunt medicamentorum, in quibus non dignoscas, cui tribuas eventa.” I. c.

^f Vide *Lettres par De Foy.* t. 1. p. 198. and *Chenot de post;* p. 132.

^g *Mat. Med.* vol. 2. p. 82. ^h *Mat. Med.* p. 505.

PUNICA GRANATUM. POMEGRANATE TREE.

SYNONYMA. Granatum. *Pharm. Lond.* & *Edinb.* Malus Punica sativa. *Baub. Pin.* p. 438. *Park. Theat.* p. 1510. Malus Punica. *J. Baub. Hist. vol. i.* p. 76. Malus Granata sive Punica. *Gerard. Emac.* p. 1450. Punica spinosa, foliis nitentibus, ellipticis, integerrimis, floribus sessilibus. *Hal. Stirp. Helv. n.* 1098. *Conf. Du Hamel Traité des arbres, t. 2.* p. 193. et *Miller Illustr. Syst. Sex.* & Punica floribus plenis. Theophrasti et Dioscoridi *arbor ejusque fructus diciuntur ροα;* Hippocrati *arbor audit Σιδην,* unde cortex *fructus Σιδηνος* vel *Pons.* Flores Puniceae sativae autem Dioscoridi et Galeni κυρνας bodie Balaustiorum Flores, vocantur.

Class Icosandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 618.

Eff. Gen. Ch. *Cal.* 5-sidus, superus. *Petala 5.* *Pomum multiloculare polyspermum.*

Sp. Ch. P. foliis lanceolatis, caule arboreo.

THIS small tree rises several feet in height: it is covered with a brownish bark, and divided into many small branches, which are armed with spines: the leaves are oblong, or lance-shaped, pointed, veined, of a deep green colour, and placed upon short footstalks: the flowers are large, of a rich scarlet colour, and stand at the end of the young branches: the corolla is composed of five large roundish slender petals, with narrow claws, by which they are inserted into the calyx: the calyx is large, thick, fleshy, tubular, of a brownish red colour, and divided at the extremity into five pointed segments: the filaments are numerous, short, bent inwards, furnished with yellow antheræ, and attached to the calyx: the germen is roundish, and supports a simple style, of the length of the filaments, and terminated by a globular stigma: the fruit is about the size of an orange, and crowned with the five teeth of the calyx: the rind is thick and tough, externally



Punica Granatum.

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externally reddish, internally yellowish, filled with a red succulent pulp,^a contained in transparent cellular membranes, and included in nine cells, within which numerous oblong angular seeds are also lodged. This shrubby tree is a native of Spain, Italy, and Barbary, and flowers from June till September.

The Greek writers were well acquainted with the Pomegranate, as appears from what we have already mentioned under the *Synonyma*; and Pliny tells us that its fruit was usually sold in the neighbourhood of Carthage.^b The cultivation of this tree in England is first to be dated from the time of Gerard, in 1596;^c and though its fruit seldom arrives to a state of perfection in this country,^d yet the large and beautiful scarlet flowers^e which it produces, still render it a desirable object of ornamental gardening. The rind of the fruit, and the flowers, the calyces of which may be included, are the parts directed in the Pharmacopœias for medicinal use. The fruit has been called *cortex granati*, *malicorium*, *fidium*, &c. In its smell there is nothing remarkable, but to the taste it is very astringent. “With water it yields near half its own weight of a very austere extract, but gives out very little to rectified spirit; its astringent matter, like that of the fruit of the acacia tree, seeming to be indissoluble in spirituous menstrua: in this respect the astringency of the fruit differs from the latter,”^f which are named *Balaustium* or *Balaustine* flowers; these are commonly taken from the double-flowered variety, and like the rind have little or no smell, but a mild bitterish styptic taste. They are both powerful astringents,^g and with this effect have long been successfully employed in diseases both internally and externally. Dr. Cullen observes that “the strong styptic taste of this bark, and the “black colour it strikes with green vitriol, shew sufficiently its astringent “power; and it is commonly supposed to be among the strongest of

^a This is gratefully acid, somewhat like that of oranges.

^b — Circa Carthaginem punicum malum cognomine sibi vendicat; aliqui granatum appellant. 1. 13. c. 19. p. 333. ^c Vide Aiton's Hort. Kew.

^d Miller tells us that he obtained fruit from some of these trees which were planted in a warm situation, but they had not the proper flavour.

^e The double flowered sort, more especially, makes a very beautiful appearance.

^f Lewis Mat. Med. p. 328. ^g Virtus *corticis*: validus adstringens, coriaria; *florum*: paullo mitior; *pulpa* refrigerans, restringens. Berg. M. M. p. 398.

" this kind. As at the same time, it gives out such a large portion of its substance to water in infusion or decoction, it seems to be particularly fit for affording a liquid astringent, and I have frequently found it particularly useful in gargles, in diarrhoea, and in external applications. That it is so powerful an astringent internally used, as to be more dangerous than others, I cannot perceive; and that it has ever had the power of suppressing the catamenia, seems to me very doubtful."^b The dose, in substance, is from half a dram to a dram; in infusion or decoction, to half an ounce.

^b M. M. vol. ii. p. 44.

ⁱ Usus cort. externus, Laxitas uvulæ, Procedentia intestini. Berg. l. c.

POTENTILLA REPTANS. COMMON CINQUEFOIL.

SYNONYMA. Pentaphyllum. *Pharm. Lond.* Quinquefolium majus repens. *Bauh. Pin.* p. 325. Quinquefolium vulgare. *Gerard. Emac.* p. 987. Pentaphyllum vulgatissimum. *Park. Theat.* p. 398. *Raii Hist.* p. 611. *Synop.* p. 255. *J. Bauh. Hist.* p. 397. Fragara foliis quinatis, ferratis, petiolis unifloris, caule reptante. *Hal. Stirp. Helv.* n. 1118. *Withering. Bot. Arrang.* p. 534. *Curtis Flor. Lond.*

Class Icosandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 634.

Eff. Gen. Ch. *Cal.* 10-fidus. *Petala* 5. *Sem.* subrotunda, nuda, receptaculo parvo ex succo affixa.

Sp. Ch. P. foliis quinatis, caule repente, pedunculis unifloris.

THE root is perennial, long, tapering, or fusiform, furnished with but few fibres, internally reddish, and externally of a yellowish brown colour: the stalks are numerous, slender, purplish, smooth, and creeping: the leaves are quinate, or five, placed together, and sometimes



Potentilla reptans

Published by Dr. Woodville Decr 1 1790

times seven, of unequal size, elliptical, obtuse, serrated, veined, somewhat hairy, and fitting close to the common footstalk, which is of considerable length, and rises from the stoloniferous joints of the stem: the stipulæ stand in pairs, and are composed of three ovalish leaves: the flowers are yellow, and placed singly upon long slender peduncles: the corolla consists of five petals, which are inversely heart-shaped, of a bright yellow colour, and inserted into the calyx by short claws: the calyx is a perianthium of one leaf, divided into ten pointed segments, which are alternately smaller, and frequently turned back: the filaments are about twenty, short, tapering, and inserted at the glandular base of the calyx, and crowned by oblong, flattish, double-celled yellow antheræ: the germina are numerous, and form a conical head, supporting short styles, terminated by blunt stigmata: the seeds are numerous, small, and of a brown colour. It flowers from July till September, and is common on meadow banks, and on the sides of roads.

The roots of this plant have a bitterish styptic taste, and give out their astringent matter both to water and spirit. They were used by Hippocrates and Dioscorides, and by the former particularly recommended for the cure of intermittents.^a And Ray tells us, that the peasantry still employ them with this intention.^b The medicinal quality of Cinquefoil is confined to the external or cortical part of the root, and depends merely upon its astringent effects; it has therefore been chiefly prescribed internally in diarrhœas and other fluxes, and externally in gargles and astringent lotions: but as its efficacy is much inferior to many other plants of this class, the Cinquefoil is now rarely used. In large doses, however, it may be found no bad substitute for some of the other astringents.

^a *De Morb. l. 2. p. 473.* Foës.

^b *Hist. Plant. p. c.* See also *Senac de recond. febr. interm. nat. p. 185.*

NICOTIANA TABACUM.

VIRGINIAN TOBACCO.

SYNONYMA. Nicotiana. *Pharm. Lond. & Edinb.* Nicotiana major latifolia. *Baub. Pin.* p. 169. Nicotiana major sive Tabacum majus. *J. Baub. Hist.* iii. p. 629. Tabacco latifolium. *Park. Parad.* p. 363. *Rati Hist.* p. 713. Hyoscyamus Peruvianus. *Gerard. Emac.* p. 357. Petum latifolium. *Clusius. Exot.* p. 309. Herba sancta. *Lobel. Advers.* p. 251. Nicotiana (*Tabacum*) foliis lanceolatis, ovatis, decurrentibus. *Miller. Dict.*

¶ Nicotiana major latifolia.

C. B. l. c.

Broad-leaved Virginian Tobacco.

§ Nicotiana foliis lanceolatis acutis sessilibus, calycibus acutis, tubo floris longissimo.

Miller. Dict.

Narrow-leaved Virginian Tobacco.*

Class Pentandria. Ord. Monogynia, Lin. Gen. Plant. 248.

Eff. Gen. Ch. Cor. infundibul. limbo plicato. *Stamina* inclinata.

Caps. 2-valvis, 2-locularis.

Sþ. Ch. N. foliis lanceolato-ovatis sessilibus decurrentibus, floribus acutis.

THE root is annual, large, long, and fibrous: the stalk is erect, strong, round, hairy, branched towards the top, and rises five or six feet in height: the leaves are numerous, large, oblong, pointed, entire, veined, viscous, of a pale green colour, without footstalks, and follow the stem downwards: the bracts are long, linear, and pointed: the flowers terminate the stem and branches in loose clusters or panicles: the corolla is monopetalous, funnel-shaped, with a long hairy tube, which gradually swells towards the limb, where it divides into five folding acute segments of a reddish colour: the calyx is hairy, about the length of the corolla, and is cut into five narrow segments:

* The figure here presented seems to accord very well with this variety.

the



Nicotiana Tabacum

Published by Dr. Woodville Decr 1 1790

the five filaments are bent inwards, tapering, and crowned with oblong antheræ: the german is oval, and supports a long slender style, terminated by a round cleft stigma: the capsule is oval, and divided into two cells, which contain many small roundish seeds.— It is a native of America, and flowers in July and August.

Tobacco was first imported into Europe about the middle of the sixteenth century by Hernandez de Toledo, who sent it to Spain and Portugal; at that time the Ambassador of Francis II. resided at the court of Lisbon, and in the year 1560, he carried the Tobacco into France, when it was presented to Catharine d' Medicis as a plant from the new world, posseſſing extraordinary virtues. The Ambassador's name was Nicot, and hence the appellation Nicotiana. It appears from Lobel, that this plant was cultivated in Britain previous to the year 1570;^a and the introduction of the custom of smoking it in England is ascribed to Sir Walter Raleigh. The cultivation of Tobacco * is now common in various parts of the globe, and though

^a Vide l. c.

* Long, in his History of Jamaica, describes the method of its cultivation to be as follows:—“ When a regular plantation of Tobacco is intended, several beds are prepared, well turned up with the hoe. The seed, on account of its smallness, is mixed with ashes, and sown upon them a little before the rainy season. The beds are then raked, or trampled with the feet, to make the seed take the sooner. The plants appear in two or three weeks. So soon as they have acquired four leaves, the strongest are drawn up carefully and planted in the Tobacco field by a line, at the distance of about three feet from each plant: this is done either with a stick or the finger. If no rain falls, it should be watered two or three times, to make it strike root. Every morning and evening the plants must be surveyed, in order to destroy a worm which sometimes invades the bud. When they are grown about four or five inches high they are to be cleaned from weeds, and moulded up; and as soon as they have eight or nine leaves, and are ready to put forth a stalk, the top is nipped off, in order to make the leaves longer and thicker. After this, the buds which sprout at the joints of the leaves are all plucked, and not a day suffered to pass without examining the leaves, to destroy a large caterpillar which is sometimes very destructive to them. When they are fit for cutting, which is known by the brittleness of the leaves, they are cut with a knife close to the ground; and after being left to lie there some little time, are carried to the drying-shed or house, where the plants are hung up, by pairs, upon lines or ropes stretched across, leaving a space between, that they may not touch one another. In this state they remain to sweat and dry. When they become perfectly dry, the leaves are stripped from the stalks, and made into small bundles, tied with another leaf. These bundles are laid in heaps, and covered with blankets. Care is taken not to overheat them; for which reason the heaps are laid open to the air from time to time, and spread abroad. This operation is repeated till no more heat is perceived in the heaps, and the Tobacco is then stowed in casks for exportation.”—Vol. 3. p. 719.

prohibited by the laws of this country, still the manufacture of it forms no inconsiderable branch of commerce.

The different sorts of Tobacco and Snuffs prepared from it which are now in use, are to be attributed to the difference of the climate and soil in which it grows, and the peculiar mode of managing and manufacturing the plant, rather than to any essential difference in its qualities ; we shall therefore proceed to the consideration of the effects of Tobacco upon the body, which from its general employment deserves particular attention ; and no apology will be thought necessary for transcribing the whole of what has been lately advanced upon this subject by Dr. Cullen.—“ Tobacco is a well-known drug, of a narcotic quality, which “ it discovers in all persons, even in small quantity, when first applied “ to them. I have known a small quantity of it, snuffed up the nose, “ produce giddiness, stupor, and vomiting; and when applied in differ- “ ent ways, in larger quantity, there are many instances of its more “ violent effects, even of its proving a mortal poison. In all these “ instances it operates in the manner of other narcotics : But along “ with its narcotic qualities it possesses also a strongly stimulant power, “ perhaps with respect to the whole system, but especially with respect “ to the stomach and intestines; so as readily, even in no great doses, “ to prove emetic and purgative.

“ By this combination of qualities, all the effects of tobacco may “ be explained ; but I shall begin with considering its effects as they “ appear in the use of it as an article of living.

“ As such it has been employed by snuffing, smoking, and chewing ; “ practices which, as having been for two hundred years past common “ to all Europe, need not be described here. Like other narcotics, “ the use of it may be introduced by degrees ; so that its peculiar “ effects, even from large quantities employed, may not, or may “ hardly at all appear : but this does not at all contradict the account “ I have given of its quality with respect to persons unaccustomed to “ it, and even of its tendency to show its power in those much ac- “ customed to it : for even in these, the power of habit has its limits ; “ so that in persons going but a little beyond the dose to which they “ have been accustomed, very violent effects are sometimes produced.

“ On this subject it is to be remarked, that the power of habit is “ often unequal ; so that in persons accustomed to the use of tobacco, “ a lesser

" a lesser quantity than what they had been accustomed to, will often
 " have stronger effects than had before commonly appeared. I knew
 " a lady who had been for more than twenty years accustomed to
 " take snuff, and that at every time of day; but she came at length
 " to observe, that snuffing a good deal before dinner took away her
 " appetite: and she came at length to find, that a single pinch, taken
 " any time before dinner, took away almost entirely her appetite for
 " that meal. When, however, she abstained entirely from snuff before
 " dinner, her appetite continued as usual; and after dinner, for the rest
 " of the day, she took snuff pretty freely without any inconvenience.

" This is an instance of the inequality of the power of habit in
 " exerting its effects: but in what cases this may take place, we
 " cannot determine, and must now go on in marking its usual and
 " ordinary powers. When snuff, that is, tobacco in powder, is first
 " applied to the nose, it proves a stimulus, and excites sneezing; but
 " by repetition that effect entirely ceases.

" When snuff is first employed, if it be not both in small quantity
 " and be not thrown out immediately by sneezing, it occasions some
 " giddiness and confusion of head; but by repetition these effects
 " cease to be produced, and no other effect of it appears in the
 " accustomed, when not taken beyond the accustomed quantity. But
 " even in the accustomed, when it is taken beyond the usual quantity,
 " it produces somewhat of the same giddiness and confusion of head
 " that it did when first employed; and in several cases, these effects
 " in the accustomed, depending on a larger dose, are not only more
 " considerable, as they act on the sensorium, but as they appear also
 " in other parts of the system, particularly in the stomach, occa-
 " sioning a loss of appetite, and other symptoms of a weakened tone
 " in that organ.

" With respect to this, it is to be observed, that persons who take
 " a great deal of snuff, though they seem, from the power of habit,
 " to escape its narcotic effects; yet as they are often liable to go to
 " excess in the quantity taken, so they are still in danger from these
 " effects operating in an insensible manner; and I have observed
 " several instances of their being affected in the same manner as
 " persons are from the long continued use of other narcotics, such as
 " wine and opium; that is, by a loss of memory, by a fatuity, and
 " other

" other symptoms of the weakened or senile state of the nervous system, induced before the usual period.

" Among other effects of excess in snuffing, I have found all the symptoms of dyspepsia produced by it, and particularly pains of the stomach, occurring every day. The dependance of these upon the use of snuff became very evident from hence, that upon an accidental interruption of snuffing for some days, these pains did not occur; but upon a return to snuffing, the pains also recurred; and this alternation of pains of the stomach and of snuffing having occurred again, the snuff was entirely laid aside, and the pains did not occur for many months after, nor, so far as I know, for the rest of life.

" A special effect of snuffing is its exciting a considerable discharge of mucus from the nose; and there have been several instances of headaches, toothachs, and ophthalmias relieved by this means: and this is to be particularly remarked, that when this discharge of mucus is considerable, the ceasing or suppression of it by abstaining from snuff, is ready to occasion the very disorders of headach, toothach, and ophthalmia, which it had formerly relieved.

" Another effect of snuffing to be taken notice of is, that as a part of the snuff is often carried back into the fauces, so a part of this is often carried down into the stomach, and then more certainly produces the dyspeptic symptoms mentioned. These are the considerations that relate to snuffing; and some of them will readily apply to the other modes of using this drug.

" Smoking, when first practised, shows very strongly the narcotic, vomiting, and even purging powers of tobacco, and it is very often useful as an anodyne; but by repetition these effects disappear, or only show themselves when the quantity smoked is beyond what habit had before admitted of; and even in persons much accustomed to it, it may be carried so far as to prove a mortal poison. From much smoking all the same effects may arise which we said might arise from excess in snuffing.

" With respect to the evacuation of mucus which is produced by snuffing, there are analogous effects produced by smoking, which commonly stimulates the mucous follicles of the mouth and fauces, and particularly the excretaries of the salivary glands. By the " evacuation

" evacuation from both sources, with the concurrence of the narcotic power, the toothach is often greatly relieved by it; but we have not found the smoking relieve headaches and ophthalmias so much as snuffing often does. Sometimes smoking dries the mouth and fauces, and occasions a demand for drink; but, as commonly the stimulus it applies to the mucous follicles and salivary glands draws forth their liquids, it occasions on the other hand a frequent spitting.

" So far as this is of the proper saliva, it occasions a waste of that liquid so necessary in the business of digestion; and both by this waste and by the narcotic power at the same time applied, the tone of the stomach is often weakened, and every kind of dyspeptic symptoms are produced. Though in smoking a great part of the smoke is again blown out of the mouth, still a part of it must necessarily pass into the lungs, and its narcotic power applied there often relieves spasmodic asthma; and by its stimulant power it there also sometimes promotes expectoration, and proves useful in the catarrhal or pituitous difficulty of breathing.

" Smoking has been frequently mentioned as a means of guarding men against contagion. In the case of the plague, the testimony of Diemerbroek is very strong; but Rivinus and others give us many facts which contradict this: and Chenot gives a remarkable instance of its inutility. We cannot indeed suppose that tobacco contains an antidote of any contagion, or that in general it has any antiseptic power; and therefore we cannot allow that it has any special use in this case: but it is very probable that this and other narcotics, by diminishing sensibility, may render men less liable to contagion; and by rendering the mind less active and anxious, it may also render men less liable to fear, which has so often the power of exciting the activity of the contagion. The antiloimic powers of tobacco are therefore on the same footing with those of wine, brandy, and opium.

" The third mode of using tobacco is that of chewing it, when it shows its narcotic qualities as strongly as in any other way of applying it; though the nauseous taste of it commonly prevents its being carried far in the first practice. When the practice, however, is continued, as it is very difficult to avoid some part of it dissolved in the saliva from going down into the stomach, so this, with the

" nausea excited by the taste, makes vomiting more readily occasioned
 " by this than the other modes of applying it. They are the strong,
 " and even disagreeable impressions repeated, that give the most du-
 rable and tenacious habits; and therefore the chewing of tobacco
 " is apt to become one of these: and it is therefore in this way that
 " it is ready to be carried to the greatest excess, and to show all the
 " effects of the frequent and large use of narcotics. As it commonly
 " produces a considerable evacuation from the mouth and fauces, so
 " it is the most powerful in relieving the rheumatic affection of
 toothach. This practice is also the occasion of the greatest waste
 " of saliva; and the effects of this in weakening digestion, and perhaps
 " from thence especially, its noted effect of producing emaciation
 " may appear.

" These are the effects of the different modes of employing tobacco,
 " when it comes to be of habitual use and an article of living. These
 " effects depend especially upon its narcotic power, and certain cir-
 cumstances accidentally attending its application to the nose and
 mouth: but as we have observed before, that beside its narcotic, it
 " possesses also a stimulant power, particularly with respect to the
 alimentary canal: by this it is frequently employed as a medicine
 " for exciting either vomiting or purging, which it does as it happens
 " to be more immediately applied to the stomach or to the intestines.

" An infusion of from half a dram to a dram of the dried leaves, or
 " of these as they are commonly prepared for chewing, for an hour
 or two, in four ounces of boiling water, affords an emetic which has
 been employed by some practitioners, but more commonly by the
 vulgar only. As it has no peculiar qualities as an emetic, and its
 operation is commonly attended with severe sickness, it has not been,
 nor is it likely ever to come into common practice with physicians.

" It is more commonly employed as a purgative in glysters; and,
 as generally very effectual, it is employed in all cases of more
 obstinate costiveness; and its powers have been celebrated by many
 authors. I have known it to be in frequent use with some practi-
 tioners; and it is indeed a very effectual medicine, but attended
 with this inconvenience, that when the dose happens to be in any
 excess, it occasions severe sickness at stomach; and I have known
 it frequently occasion vomiting.

" It is well known, that in cases of obstinate costiveness, in ileus
 " and incarcerated hernia, the smoke of burning tobacco has been
 " thrown into the anus with great advantage. The smoke operates
 " here by the same qualities that are in the infusions of it above
 " mentioned ; but as the smoke reaches much further into the intestines
 " than injections can commonly do, it is thereby applied to a
 " larger surface, and may therefore be a more powerful medicine
 " than the infusions. In several instances, however, I have been
 " disappointed of its effects, and have been obliged to have recourse
 " to other means.

" The infusion of tobacco, when it is carried into the blood-vessels,
 " has sometimes shown its stimulant powers exerted in the kidneys ;
 " and very lately we have had it recommended to us as a powerful
 " diuretic of great service in dropsy. Upon the faith of these recom-
 " mendations we have now employed this remedy in various cases of
 " dropsy, but with very little success. From the small doses that are
 " proper to begin with, we have hardly observed any diuretic effects ;
 " and though from larger doses they have in some measure appeared,
 " we have seldom found them considerable : and when, to obtain
 " these in a greater degree, we have gone on increasing the doses,
 " we have been constantly restrained by the severe sickness at stomach,
 " and even vomiting, which they occasioned : so that we have not
 " yet learned the administration of this remedy so as to render it a
 " certain or convenient remedy in any cases of dropsy.

" The same circumstances have occurred to several other practitioners of this city and neighbourhood ; and of late the trials of it
 " have been very generally omitted, owing perhaps to our practitioners
 " being directed at the same time to the use of the digitalis, with which
 " they have had some more success.

" From some experiments we are certain that tobacco contains a
 " quantity of volatile parts that may be dissipated by long boiling in
 " water ; and that by such a practice its emetic, purgative, and nar-
 " cotic qualities may be greatly diminished ; and we are of opinion
 " that the preparation in extract, as prescribed in the Wirtenberg
 " dispensatory, is upon a good foundation, and may be employed in
 " pectoral cases with more advantage and safety than the simple in-
 " fusion or decoction made by a short boiling only.

" When

" When we were restrained in employing the infusion of tobacco
 " as a diuretic, as mentioned, we expected to succeed better with the
 " decoction ; and I have found, that by long boiling this might be
 " given in much larger doses than the infusion : but we still found it
 " retaining so much of the emetic quality, that we could not employ
 " it as a diuretic without being interrupted in its use by the same
 " emetic quality that had interrupted the use of the infusion.

" Besides the internal uses of tobacco mentioned, I must now
 " remark, that it has likewise been commended for its virtues as
 " externally employed. I have known the infusion employed with
 " advantage as a lotion for some obstinate ulcers : but the many in-
 " stances of its being absorbed, and proving thereby a violent poison,
 " dissuade from such a practice ; especially as there are other medi-
 " cines, of as much efficacy, that may be employed with much
 " more safety. Bergius recommends it to be employed as a fomen-
 " tation in the paraphymosis ; but we have had no opportunity of
 " employing it." *

* The preceding quotation has completely anticipated what we have to offer upon the subject of Tobacco. Respecting its poisonous, or narcotic, effects, we shall subjoin the following references : — *Ephem. Nat. Cur. Dec. 2. Ann. 10. Obs. 131.* p. 222. we are told, that by the immoderate use of snuff, somnolency, and at length fatal apoplexy, was induced. *Hilkwig Obs. Phys. Med.* p. 45. gives two instances of the same kind, occasioned by smoking 17 or 18 pipes of Tobacco. For the effects of Tobacco, by absorption from its external use, see *Eph. cit. Ann. 4. p. 46. et Ann. 2. Obs. 108.* p. 262. *Albin's M. M. vol. ii. p. 190.* The oil of Tobacco, applied to a wound, is said by Redi to be as fatal as the poison of a viper. See *Experim. Nat.* p. 8. 50. 315. Albinus however did not find that this was the case with the different animals on which he tried the experiment. *Diff. de Tobac.* p. 11. This oil, given to pigeons, produced fatal effects, and was constantly attended with vomiting. *Abbé Fontana. Vide Phil. Transf. vol. lxx.* Tobacco, taken by dogs, also produces vomiting. *Gesner. Epist. lib. ii. p. 79.* The smoke of Tobacco has been successfully used in the way of injection, by means of a proper instrument, for obstructions and inveterate constipations of the belly, ever since the time of Sydenham ; and Haen, in his *Rat. Med.* gives several instances of its good effects : it is also recommended in cases of asphyxia, or, what has been termed, suspended animation.

ERRATUM. In the description of the calyx of the Tobacco-plant,
 read *half* the length of the corolla.

RICINUS COMMUNIS.



Ricinus communis.

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RICINUS COMMUNIS.

COMMON PALMA CHRISTI.

SYNONYMA. Ricinus. *Pharm. Lond. & Edinb.* Gerard.
Emac. p. 496. Ricinus vulgaris. *Baub. Pin.* 432. *J. Baub.*
Hist. iii. p. 642. Ricinus sive Cataputia major vulgatior. *Park.*
Theat. p. 182. *Raii Hist.* p. 166. Ricinus 1. Fruticosus affurgens
foliis majoribus peltato-lobatis, lobis serratis acutis. *Browne's Jam.*
p. 350. Ricinus Americanus fructu racemoso hispido, &c. *Sloane's*
Cat. 38. The Oil nut tree. *Long's Jam.* v. iii. p. 712. Ricinus
foliis peltatis inæqualiter serratis, capsulis hispidis. *Miller, Figures*
of Plants, tab. 219. In horto botanico Gottingensi tres exstant va-
rietas: α , *glauca*, caule petiolis costisque foliorum stipulis pedunculis
capsulisque pallide rubris. Ricinus ruber *RUMPH. Herb. Amb.*
tom. iv. p. 79.; β , *nitens*, caule petiolis costis foliorum ceterisque
partibus et summis foliis sanguineis. Ricinus lucidus *Jacquin. Misc.*
Austr. vol. ii. p. 360. et *Icon. rarior. tab. 27.* ut puto; γ , *glauca* totaque
viridis præter stylos rubicundos. Ricinus albus *RUMPH. l. c. p. 92.*
Avanacœ f. Cavanacu. *Hort. Malab. tom. 2.* p. 57. tab. 32. Vide
Murr. App. Med. v. iv. p. 195.

Class Monoecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1085.

Eff. Gen. Ch. Masc. Cal. 5-partitus. *Cor. o.* *Stam.* numerosa.

FEM. Cal. 3-partitus. *Cor. o.* *Styli* 3, bifidi. *Caps.* 3 locul. *Sem.* 1.

Sp. Ch. R. foliis peltatis subpalmatis serratis.

THE root is biennial, long, thick, whitish, and beset with many small fibres: the stem is round, thick, jointed, channelled, glaucous, of a purplish red colour towards the top, and rises luxuriantly six or eight feet in height: \ddagger the leaves are large, and deeply divided into seven

\ddagger Long says that in Jamaica it grows with surprising rapidity to the height of fifteen or sixteen feet. *l. c.*

lobes or pointed serrated segments, of a bluish green colour: the footstalks are long, tapering, purplish, and inserted in the disc of the leaf (peltated): the flowers are male and female on the same plant, and produced in a clustered terminal spike: the *male flowers* are without a corolla, and consist of a calyx, divided into five oval pointed purplish segments, enclosing numerous long stamens, which unite at the base: the *female flowers* occupy the upper part of the spike, and have the calyx cut into three narrow segments, of a reddish colour: the styles are three, slender, and forked at the apex: the capsule is a large three-celled nut, covered with tough spines, and contains three flattish oblong seeds, || which are forced out on the bursting of the capsule. It is a native of both the Indies, and flowers in July and August.

This plant appears to be the κινη, or Κερτων of Dioscorides,^a who observes that the seeds are powerfully cathartic; † it is also mentioned by Ætius, Paulus Ægineta, and Pliny. The Ricinus was first cultivated in England in the time of Turner,^b (1562) and is now annually reared in many gardens in the neighbourhood of London; and in that of Dr. Saunders,^c at Highbury, the plant from which the

|| Hujus culibet loculo inest nux ovata, utrinque compressa, interiori præcipue superficie, quæ et linea longitudinali distinguitur, magnitudine semiñis Phaseoli minoris flore phœnico, hilo prominente sursum notato, cui callus ante adhæserat. Cortex ex bruno luteoque variegatus, fragilis, cingit nucleum album, vestitum cuticula tenella concolore—Figuræ semiñis cum infecto Ricino (Acaro Ricino L.) bobus & canibus infesto, similitudo ansam denominationis totius plantæ dedit. Murr. Ap. Med. vol. iv. p. 197.

^a Mat. Med. lib. 4. cap. 164.

† Their violent and irritating effects in this way are noticed by almost all the Materia Medica writers, and seem to be confirmed by Thunberg, (*Diff. de Medicina Africanorum*, p. 4. and Browne, *l. c.*). This acrimony however appears from later experiments to be owing to the membranes which invest the kernel, (*vide Heyer in Grels n. chem. Entdeck. P. 2. p. 47.* Also Glendenberg in *ejusd. chem. Annal. 1785. vol. ii. p. 34.*) Bergius says, “Semen unicum Ricini vulgaris, tempore vespertino, a viro fano & vegeto masticatum & deglutitum, sapore fuit amygdalarum, sed sensationem mordentem in faucibus reliquit. Per totam noctem tranquille dormivit hic vir; sed sequente die mane expergefactus, emesi violentia correptus fuit atque per totam diem sustinuit nifus alternantes vomituritionis & purgationis alvi, tametsi parum dejiciebat. Eadem vice nobilis matrona teneræ constitutionis, semen unicum pariter comedit, sed prius testam membranamque obvelantem sedulo separavit abjecitque; & nullam noxam inde sensit.” *M. M. p. 774.*

^b *Vide Hort. Kew.*

^c From the number of seeds which the Doctor has lately procured from different parts of the globe, and his scientific and solicitous care in their cultivation, we are induced to hope, that Medical Botany, under such auspices, will eventually receive considerable illustration.

present

present figure was taken, it grew to a state of great perfection. An oil extracted from the seeds^d of this plant, and known by the name of oleum ricini, Palma Christi, or castor oil, is the drug to which the pharmacopœias refer, and which has lately come into frequent use as a quick, but gentle, purgative. The London College direct this oil to be expressed from the seeds in the same way as that of almonds,^e and without the assistance of heat, by which the oil would seem to be obtained in the purest state: however, we have some reason to believe that this method is seldom practised, and that the oil usually employed here is imported from the West-Indies, where it is commonly prepared in the following manner: “The seeds being freed from the husks, or pods, which are gathered upon their turning brown, and when beginning to burst open, are first bruised in a mortar, afterwards tied up in a linen bag, and then thrown into a large pot, with a sufficient quantity of water, (about eight gallons to one gallon of the seeds) and boiled till the oil is risen to the surface, when it is carefully skimmed off, strained, and kept for use. Thus prepared, the oil is entirely free from acrimony, and will stay upon the stomach when it rejects all other medicines.” And Mr. Long remarks, that “the oil intended for medicinal use is more frequently cold-drawn, or extracted from the bruised seeds by means of a hand-press. But this is thought more acrimonious than what is prepared by coction.”^f Dr. Browne is also of this opinion, and prefers the oil procured by

^d Where the oil is rejected, the seeds may be carefully separated from their shells and the inner white membrane, and formed into an emulsion, and given as an agreeable substitute for the oil.

^e Some objection has been made to this manner of obtaining the oil, as stated in our pharmacopœia, which we shall here mention in the words of Murray: Expressione si eliceatur oleum, quidam suadent decorticati seminis præviam conquassationem in mortario, (*Canvane Diff. on the Oleum Palmæ Christi, &c.* p. 20,) sed inde ob mucilaginis evolutionem, quæ simul contingit crassum & turbidum evadit oleum (quod bene adjecit Bonelli in *versione libri cl. Canvane.* p. 63. *Glendenberg l. c. p. 32*), nec nisi difficulter eruitur. Præstat igitur nucleos integros premere. Facilius quoque evocatur oleum ex seminibus, quæ moram aliquam traxerunt, quam ex recentibus; mucilago enim sensim siccior evadere videtur, tumque connubium suum cum oleo relaxare.” (*Heyer in Crelles Entd.* p. 3. p. 74.) *l. c.*

^f Long's *Jamaica*, p. 713. It is well known however, that the oil obtained by boiling becomes much sooner rancid than that by expression. The best oil is limpid, and destitute of taste or smell. In the West Indies it is usually consumed in lamps, and for other domestic purposes.

coction to that by expression ; he attributes its greater mildness to the action of the fire, observing that the expressed oil, as well as the mixed juices of the seeds, are far more active and violent in their operations.^g Dr. Cullen observes, that " this oil, when the stomach can be reconciled to it, is one of the most agreeable purgatives we can employ. " It has this particular advantage, that it operates sooner after its exhibition than any other purgative I know of, as it commonly operates in two or three hours. It seldom gives any griping, and its operation is generally moderate, to one, two, or three stools only. It is particularly suited to cases of costiveness, and even to cases of spasmodic colic. In the West Indies it is found to be one of the most certain remedies in the dry-belly ach, or *colica pictonum*.^h I have never found it heating or irritating to the rectum, and therefore have found it sufficiently well suited to hæmorrhoidal persons. The only inconvenience attending the use of this medicine is, that as an oil it is nauseous to some persons ; and that, when the dose is large, it occasions sickness at the stomach for some time after it is taken. To obviate these inconveniences, several means have been tried ; but I shall not detail these here, as I can assert, that the most effectual means is the addition of a little ardent spirit. For this in the West Indies they employ rum ; but that I might not withdraw any part of the purgative, I employ the *tinctura sennæ composita*. This, added in the proportion of one to three parts of the oil, and very intimately mixed by their being shaken together in a phial, both makes the oil less nauseous to the taste, and makes it fit more easily on the stomach. The common dose of this oil is a tablespoonful, or half an ounce ; but many persons require a double quantity."ⁱ

^g L. c. But this is better explained under note †

^h We may add, that it has been experienced to be an useful medicine in various febrile complaints, and in bilious colics, nephritic cases, worms, especially the tape-worm.

ⁱ *M. M. vol. 2. p. 563,* Dr. Cullen remarks, " It is particularly to be observed of this medicine, that if it be frequently repeated, the dose of it may be gradually more and more diminished. And I know instances of persons who, formerly of a costive habit, at first required half an ounce or more for a dose ; but after being frequently repeated, they now find that two drams are enough, at least to keep the belly regular."



Clematis recta

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CLEMATIS RECTA.

UPRIGHT VIRGIN'S BOWER.

SYNONYMA. Flammula Jovis. *Pharm. Edinb.* Flammula recta. *Baub. Pin. p. 300.* Clematis five Flammula surrecta alba. *J. Baub. Hist. vol. ii. p. 127.* Flammula Jovis surrecta. *Gerard. Emac. p. 888.* *Park. Theat. p. 382.* *Raii Hist. p. 621. sp. 4.* Clematis caule erecto, foliis pinnatis ovato-lanceolatis. *Hal. Stirp. Helv. n. 1144.* *Flor. Aust. tab. 291.* *Stoerck Libell. de Flam. Jovis, tab. 1.*

*Clas*s Polyandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 696.

*Ef*f. *Gen. Ch.* *Cal.* o. *Petala 4—6.* *Sem. caudata.*

Sp. Ch. C. foliis pinnatis: foliolis ovato-lanceolatis integerrimis, caule erecto, floribus pentapetalis tetrapetalisque.

THE root is perennial, white, and fibrous: the stalk is erect, scored, round, smooth, branched towards the top, and rises about two feet in height: the leaves are opposite, and pinnated, the pinnæ are placed in pairs, and terminated by an odd one; they are all oval lance-shaped, acute, entire, smooth, and veined. The flowers terminate the stem and branches in irregular umbels: there is no calyx: the petals are four or five, of an oval shape, and whitish colour: the filaments are numerous, erect, tapering, shorter than the petals, and terminated by the antheræ, which are scored on each side: the germina are many, roundish, hairy, and support bearded styles, of the length of the stamina, and crowned with obtuse stigmata: the seeds are roundish, compressed, and attached to the styles, which appear like long feathered tails; and hence the name, *sem. caudata*.

This plant is a native of Hungary, Austria, and France, and flowers from June till August: it was first cultivated in England by Gerard, previous to the year 1597, and is now sufficiently known to the

British gardeners. This, like some other species of the clematis, is extremely acrid, and hence the name *Flammula*. The recent leaves, upon being chewed, excite a burning heat of the tongue and fauces, and if retained long in the mouth, produce blisters and ulceration; but, by drying, this acrimony is considerably diminished: the flowers likewise possess a share of acrimony, though in a less degree. The *Flammula Jovis*, although mentioned by Dale and some others as an external remedy, was first recommended to the attention of practitioners by Baron Stoerck in 1769, as an useful medicine in many obstinate complaints. † He published several cases of its successful exhibition, particularly in inveterate syphilitic diseases producing headaches, pains in the bones, nodes, ulcers, cutaneous affections, &c.*

Whether this plant really deserves the character which the Baron has thus attempted to establish, by stating its uniform success in twenty-two cases out of twenty-four, in which it was tried, rests solely upon his own authority; and it is with concern we observe, that the medical facts at Vienna are not very confidently received by the physicians in this country. It was usual for Dr. Stoerck to employ the leaves and flowers, as well as an extract prepared from the former, yet the preparation which he chiefly recommends is an infusion of two or three drams of the leaves in a pint of boiling water; of which he gave four ounces three times a day, while the powdered leaves were applied as an escharotic to the ulcers.

† Although these were principally venereal, yet in ulcers, cancers, and severe headaches, not proceeding from this cause, the *Flammula Jovis* is said to have been likewise successful; and in his *Lib. de Pulsat.* p. 57. we are told of its remarkable efficacy in a case of melancholia tristissima. It generally acted as a diuretic or diaphoretic.

* Vide *Libell. de Flammula Jovis.*



Lobelia siphilitica
Published by Dr. Woodville Jan^{2d} 1. 1791.

LOBELIA SIPHILITICA.

BLUE LOBELIA; Or,
CARDINAL-FLOWER.

SYNONYMA. Lobelia. *Pharm. Edinb.* Rapunculus Americanus, flore dilute cæruleo. *D. Dodart Memoires, &c.* p. 297. Rapunculus galeatus virginianus, flore violaceo majore. *Morrison Hist. t. ii.* p. 466. *Lobelia siphilitica* caule erecto lævi, foliis lato lanceolatis ferratis *incisis* utrinque acuminatis, floribus cæruleis. *Walter Flora Carolin.* p. 218. Conf. Kalmii descriptio largior in *K. Vet. Acad. Handl.* p. 284. and *Bartram's Appendix, containing descriptions, virtues, and uses of sundry plants, &c.*

Class Syngenesia. Ord. Monogamia. Lin. Gen. Plant. 1006.

Eff. Gen. Ch. Cal. 5-sidus. *Corolla* 1-petala, irregularis. *Capsula* infera, 2—f. 3-locularis.

Sp. Ch. Caule erecto, foliis ovato-lanceolatis subserratis, calycum sinubus reflexis.

THE root is perennial, and furnished with many white fibres: the stem is upright, strong, simple, smooth, and rises upwards of two feet in height: the leaves placed towards the top of the stem, are oval and pointed; those at the bottom are elliptical, and obtusely lance-shaped; they are both minutely serrated, veined, smooth, and without footstalks: the flowers are numerous, large, blue, and grow in a long spike, upon short peduncles: the corolla consists of a long tube, which is nearly cylindrical, and divided at the limb into five pointed oval segments, of a rich blue colour: the calyx is composed of five halberd-shaped leaves, which are fringed at the margin, and reflected at each side: the filaments are five, tapering, equal in length to the tube of the corolla, and closely connected at the top by the antheræ: the germen is short and conical: the style is of the length of the

the stamina, and terminated by a blunt hairy stigma: the capsule is oval, and divided into two cells, which contain many small seeds. It is a native of Virginia, and flowers from August till October.

Rea is the first English botanist to whom Mr. Aiton ascribes the cultivation of this species of the Lobelia, and, as a handsome plant, it is now in the possession of many of our gardeners. Every part of the plant abounds with a milky juice, and has a rank smell. The root, which is the part directed for medicinal use, in taste resembles tobacco, and is apt to excite vomiting. It derived the name siphilitica from its efficacy in the cure of syphilis, as experienced by the North American Indians, who considered it a specific in that disease, and with whom it was long an important secret. This secret was purchased by Sir William Johnson, and since published by different authors.^a

The method of employing this medicine is stated as follows: A decoction is made of a handful of the roots in three measures of water. Of this, half a measure is taken in the morning fasting, and repeated in the evening; and the dose is gradually increased till its purgative effects become too violent, when the decoction is to be intermitted for a day or two, and then renewed till a perfect cure is effected. During the use of this medicine, a proper regimen is to be enjoined, and the ulcers are also to be frequently washed with the decoction, or if deep and foul, to be sprinkled with the powder of the inner bark of the New Jersey Tea-tree (*Ceanothus Americanus*.) Although the plant thus used is said to cure the disease in a very short time, yet we do not find that the antisyphilitic powers of the Lobelia have been confirmed by any instances of European practice.

^b Kalm. l. c. Bartram. l. c.

ACHILLEA MILLEFOLIUM.



Achillea Millefolium.

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ACHILLEA MILLEFOLIUM. COMMON YARROW;
Or, MILFOIL.

SYNONYMA. Millefolium. *Pharm. Edinb.* Millefolium vulgare album. *Baub. Pin.* p. 140. Millefolium terrestre vulgare. *Gerard. Emac.* p. 1072. Millefolium vulgare. *Park. Theat.* p. 693. *Raii Hist.* p. 345. *Synop.* p. 183. Achillea foliis pinnatis, pinnis longe æqualibus, pinnatis, pinnulis trifidis et quinquefidis. *Hal. Stirp. Helv.* n. 107. *A. M.* *Withering. Bot. Arrang.* p. 941. *Curtis Flor. Lond.*

Class Syngenesia. Ord. Polygamia Superflua. Lin. Gen. Plant. 971.

Eff. Gen. Ch. Recept. paleaceum. *Pappus* nullus. *Cal.* ovatus imbricatus. *Flosculi* radii circiter quinque.

Sp. Ch. A. foliis bipinnatis nudis; laciniis linearibus dentatis; caulis superne fulcatis.

THE root is perennial, creeping, round, and furnished with many whitish fibres: the stalk is upright, round, towards the bottom smooth and downy, but near the top it is slightly grooved, woolly, branched, and rises above a foot in height: the leaves stand alternately upon the stem, which they partly embrace, and are bipinnated or subdivided into a double series of pinnæ: the pinnulæ are numerous, narrow, and somewhat pointed: the flowers are white, or tinged with purple, and terminate the stem in a close corymbus: the bractæ are small, pinnatisid, and placed at the peduncles: the calyx is ovate, downy, imbricated with concave oval scales, which are membranous, and fringed at the margins: the corolla is compound, and radiated; at the *disc* the florets are about twelve, hermaphrodite, funnel-shaped, of the length of the calyx, consisting of a long yellowish tube, divided

^a Dr. Grew observes, that the fresh young roots have a glowing warm taste, approaching to that of Contrayerva, and thinks they might in some measure supply its place.—*On Tastes, chap. 5. §. 2.*

at the limb into five short segments : at the *radius* the florets are female, usually five, flat, spreading, roundish, cut at the apex into three teeth, and furnished with a cylindrical, greenish, striated tube, which is about the length of the calyx : the filaments are five, short, and slender : the antheræ are yellow, and unite into a cylindrical tube : the germen is oblong, compressed, and supports a filiform style, divided into two reflexed stigmata. It is common in dry pastures, and flowers from July till October.

The leaves and flowers of this plant have an agreeable weak aromatic smell, and a bitterish, rough, and somewhat pungent taste. “ The virtue of both is extracted by watery and spirituous menstrua ; the astringency most perfectly by the former ; their aromatic warmth and pungency by the latter ; and both of them equally by a mixture of the two. The flowers, distilled with water, yield a penetrating essential oil, possessing the flavour of the Milfoil in perfection, though rather less agreeable than the flowers themselves.”*

This plant appears to be the *Στρατιώτης χιλιοφύλλος* || of the Greek writers, by whom it was esteemed an excellent vulnerary † and styptic, and was generally employed internally as an useful astringent in all hæmorrhagic complaints. Instances of its good effects in this way^b are likewise mentioned by several of the German physicians, particularly, by Stahl and Hoffman,^c who also recommend it as an efficacious remedy in various other diseases : the former found it not only an astringent, but also a powerful tonic, antispasmodic, and sedative. In proof of the last mentioned quality; we may remark, that in some parts of Sweden it is used in making beer, in order to render it more intoxicating ; and Sparrman has observed, that it is employed for this purpose in some parts of Africa. The leaves and flowers of Milfoil are both directed for medicinal use in the Edinburgh Pharm. in the present practice however this plant, we believe, is wholly neglected.

* Vide Lewis's M. M. p. 424. || Vide Stratiotes, *Matthiol. in Dioscorid.*

† Vulneraria insuper habetur sub externo usu, jam ab Achille, ut ferunt, sanatione vulnerum subiectorum sibi militum, auctorato. Murray App. Med. vol. i. p. 167.

^b Hæmoptysis, Epistaxis, Menorrhagia, et Hæmorrhoids.

• Stahl *Diff. de Therap. pass. hypoc.* Hoffman, *De præst. rem.* §. 18.

^d Vide Linn. *Flor. Suec.* p. 299.



Hyssopus officinalis.

Published by Dr. Woodville. Jan'y 1. 1791.

HYSSOPUS OFFICINALIS. COMMON HYSSOP.

SYNONYMA. Hyssopus. *Pharm. Edinb.* Hyssopus Officinarum cærulea sive spicata. *Baub. Pin.* p. 217. Hyssopus vulgaris. *Park. Theat.* Hyssopus Arabum. *Gerard. Emac.* p. 576. Hyssopus vulgaris spicatus angustifolius. *J. Baub. Hist.* iii. p. 274. *Raii Hist.* p. 516. Hyssopus foliis linearibus punctatis, verticillatis in spica continuatis. *Hal. Stirp. Helv.* n. 249. *Jacquin Flor. Aust.* t. 254.

VARIETATES sunt, α foliis glabris, floribus cæruleis: β foliis glabris, floribus rubris: γ foliis glabris, floribus albis: δ foliis pilosis. *Aiton's Hort. Kew.*

Class Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant.* 709.

Eff. Gen. Ch. *Corollæ* labium inferius lacinula intermedia crenata.
Stamina recta, distantia.

Sp. Ch. H. spicis secundis, foliis lanceolatis.

THE root is perennial, knobbed, woody, and furnished with many long fibres: the stalk is shrubby, somewhat square, upright, much branched, and rises about two feet in height: the leaves are long, narrow, elliptical, entire, obtusely pointed, of a deep green colour, and stand in pairs without footstalks: the flowers are produced chiefly on one side, in short verticillated spikes, terminating the branches, and are of a blue colour: the calyx is tubular, striated, and divided at the extremity into five pointed segments: the corolla is monopetalous, and consists of a narrow tube, which divides at the limb into two expanded lips; the uppermost is short, roundish, and notched at the apex; the lowermost is separated into three segments, of which the undermost is very large, and inversely heart-shaped: the filaments are four, two long and two short, and crowned with simple antheræ: the style is slender, and divided at the top into a double stigma: the germen is separated into four parts or seeds, which are lodged at the bottom

bottom of the calyx. It is a native of Siberia, and the mountainous parts of Austria, and flowers from June till September.

The Hyssop, mentioned in the Old Testament, is not supposed to be the plant here described, which is neither the *Esf* of the Hebrews, nor the *isswmos* of the Greeks.^a It was first cultivated in England by Gerard,* in 1596, and is now extremely common in our gardens. “ The leaves of Hyssop have an aromatic smell, and a bitterish moderately warm taste. They give out their active matter both to water and to rectified spirit; to the last most perfectly. On inspissating the spirituous tincture, very little of the flavour of the herb exhales or distills with the menstruum: the remaining extract is bitterish, and very warm, and discovers a penetrating pungency, somewhat like that of camphor. Water, distilled from the fresh herb, is found pretty strongly impregnated with its flavour: an essential oil separates and rises to the surface, which is very pungent, and in smell exactly resembles the Hyssop.”^b

Dr. Cullen classes this and all the verticillated plants as stimulants, and this quality is to be ascribed to the quantity of essential oil which they contain; the Hyssop therefore may be esteemed aromatic and stimulant; and with a view to these effects, Bergius recommends it as an emmanagogue and antihysteric;^c but it is chiefly employed as a pectoral, and has been long thought an useful medicine in humeral asthmas, coughs, & catarrhal affections; for this purpose, an infusion of the leaves, sweetened with honey or sugar, and drank as tea, is recommended by Lewis. The external application of Hyssop is said to be particularly efficacious in the way of fomentation and poultice, in contusions, and for removing the blackness occasioned by the extravasated fluids.^d

^a Vide Le Clerc’s Hist. p. 626. cited by Alston, who says, I shall only take notice that *υαλαρος* in St. Matthew’s Gospel, chap. xxvii. ver. 48. is *ισσωμος* in St. John’s, chap. xix. ver. 29. Probably it is the *Zuse* or *cyse*, i. e. Hyssop of the Arabians. Lect. on the M. M. v. ii. p. 152.

* Vide Hort. Kew. ^b Lewis M. M. p. 348. ^c M. M. p. 512.

^d All the old writers praise it highly in this respect: Nec excluduntur sugillationes oculorum quibus herba intra sacculum aqua vel vino decocta clausis palpebris subvenit. *Riolan.* and *Sim. Pauli.*

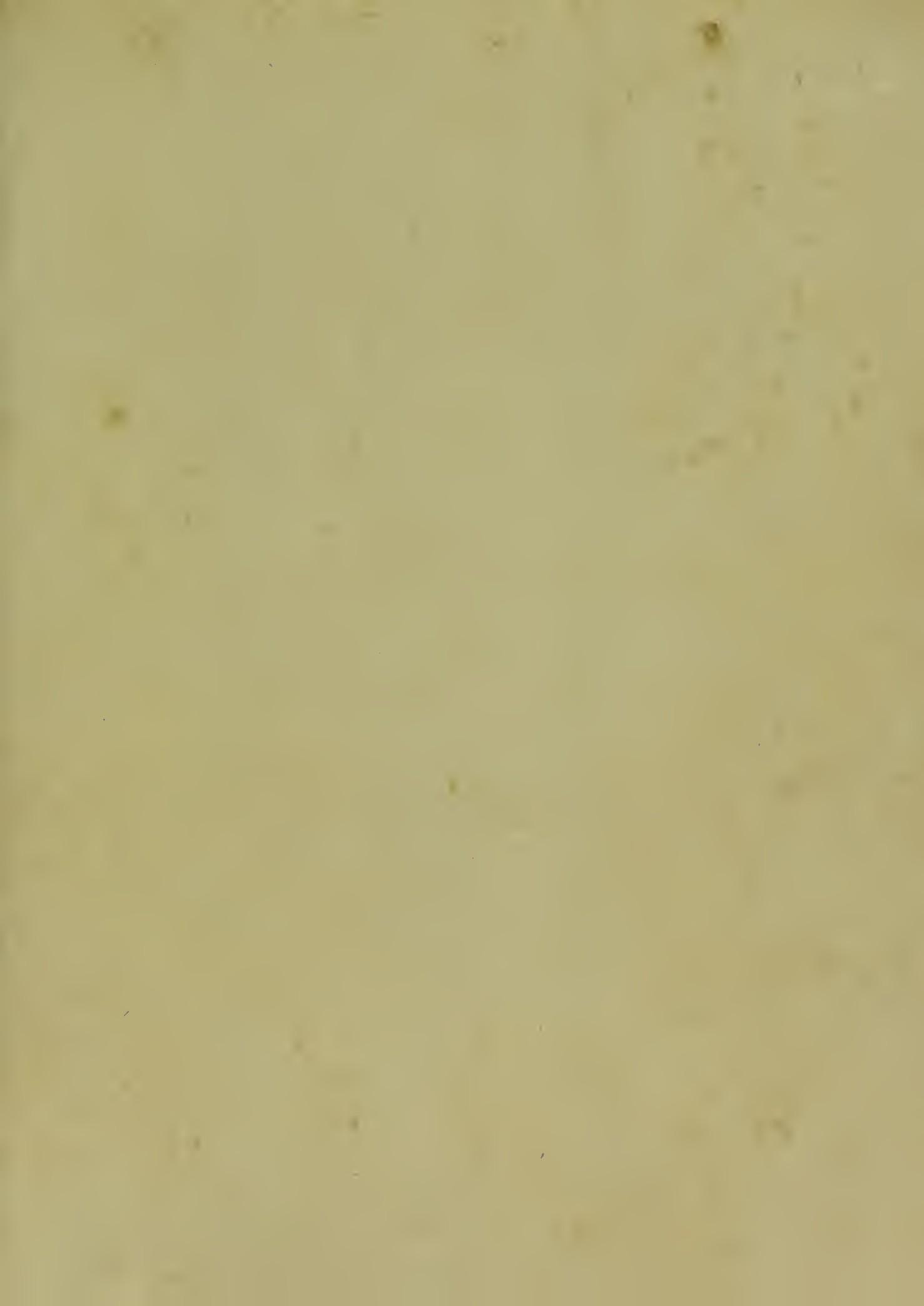
It is also recommended as a vermifuge by Rosenstein. *Barns jukd.* p. 358.

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strength since the event had hap-
pened, and that you should have been in

England at part of the time.

Yours, &c.

Charles You.

Mr. Cooksey said, he would next read his reply.

The Earl of Coventry instantly rose, and informed their Lordships, that after the letter of his writing, all correspondence between Mr. Cooksey and himself was barred; he denied therefore any knowledge of my future letters, at Mr. Cooksey's high-church vicarage to him.

Spofford seemed hurt at the objection of the Noble Earl, and proceeded rapidly to enumerate, when he was silenced by the House, and

The Lord Chancellor addressing him from the woolsack, informed them, that hitherto he had conducted his defence with great disre-
spect, and that he had been well advised in that particular. He al-
most desisted therefore to preserve the same temper, and the same
had further to offer to their Lordships con-
cerning

He recovered himself instantly in consequence of this friendly adjuration, and calmly proceeded to read the

COPY OF THE ANSWER OF RICHARD COOKSEY, Esq. TO THE LETTER OF
THE RIGHT HON. THE EARL OF COVENTRY, dated APRIL 15, 1792.

My Lord,

I down to give your letter a cool and deliberate answer. Had I the right, of declining a commission in the Wor-
ldship, of the King of England, a commission contained in our
country; and which I do not hear, your Lordship
have had reason to suppose evidence of any

or the county of Worcester? No man wishes more the welfare
of the county of Worcester than I do, because I have received very
distinguishing marks of the favour of its inhabitants; but it is be-
cause your Lordship thought proper to make a very different, and a
very cruel reason, namely to me, words, "peculiar ob-
jections."

There is a jealousy, my Lord, about a man who is neither rich, which
you from your situation cannot tell, but is poor, and despised, he will
�ats over with contempt, a man who receives less from a Peer,
he receives less from a Peasant, and a gentle-
man, and a gentle-
man.

Mr. Cooksey here explained, that he
was ready to put his character to the world,
in the street, but if he made it known, he
would be exposed to the world, and his name, for
the sake of his wife, and his children, for

that has prompted every expression I
ever did, nor answered the material pur-
pose, the same sentiments of your Lordship
ready to put my character to the world,
Lordship.

I have hitherto deferred bringing up
curing the most proper time, would be
Mole's commission. Your command, de-
liver.

I am, my Lord,
Yours, &c.
R.

[Before Mr. Cooksey read the subsequent re-
sponse, it was observed from Mr. Vigar, that the
man who had seen him in the House before
he gave, had recited some of the evidence of an